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American Institute of Certified Public Accountants. Control Risk Audit Guide Revision Task Force

AICPA
AUDIT
GUIDE

CONSIDERATION OF INTERNAL CONTROL IN A FINANCIAL STATEMENT AUDIT

New Edition as of April 1, 1996

American Institute of
Certified Public Accountants

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NOTICE TO READERS

This AICPA Audit Guide has been prepared by the AICPA Control Risk Audit Guide Revision Task Force to assist auditors in auditing such financial statements in accordance with generally accepted auditing standards. The AICPA Auditing Standards Board has found the descriptions of auditing standards, procedures, and practices in this Audit Guide to be consistent with existing standards covered by rule 202 of the AICPA Code of Professional Conduct. Descriptions of auditing standards, procedures, and practices in Audit Guides are not as authoritative as pronouncements of the Auditing Standards Board, but AICPA members should be aware that they may have to justify a departure from such descriptions if the quality of their work is questioned.

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Preface

In 1988, the Auditing Standards Board (ASB) issued SAS No. 55, *Consideration of the Internal Control Structure in a Financial Statement Audit* (AICPA, *Professional Standards*, vol. 1, AU sec. 319). In 1995, the ASB amended SAS No. 55 to recognize *Internal Control—Integrated Framework* (the COSO Report),[1] published by the Committee of Sponsoring Organizations of the Treadway Commission. The COSO Report was developed based on a recommendation by the Committee on Fraudulent Financial Reporting. The ASB believes the COSO Report is rapidly becoming a widely accepted framework for sound internal control among U.S. organizations. The amendment to SAS No. 55 and the conforming changes to this Audit Guide result in one common definition and description of internal control.

SAS No. 55, as amended, requires that, in every audit, the auditor—

- Obtain an understanding of each of the components (control environment, risk assessment, control activities, information and communication, and monitoring) of internal control sufficient to plan the audit.
- Assess control risk for assertions related to account balances and transaction classes.

This Audit Guide has been prepared to illustrate how SAS No. 55, as amended, might be applied by auditors in audits of financial statements. Specifically, the Audit Guide does this by illustrating two different audit strategies that an auditor might choose when auditing an assertion. The two strategies are presented in the flowchart in figure 1-1, which was designed to facilitate an understanding of this Audit Guide. As depicted in the flowchart in figure 1-1, the auditor may plan one of the following:

- A primarily substantive approach (which ordinarily results in a control risk assessment at or slightly below maximum)
- A lower control risk assessment.

In each case, the preliminary audit strategy may influence the extent of the understanding of each component of internal control that the auditor needs to obtain. Therefore, the nature, timing, and extent of procedures performed to obtain this understanding and to assess control risk may differ. The audit strategy may also affect the nature, timing, and extent of substantive procedures to be performed.

This Audit Guide provides guidance on these matters as well as on the related documentation of evidence obtained by the auditor. It supports the guidance with illustrations of the audits of three hypothetical companies—Ownco, Inc., Young Fashions, Inc., and Vinco, Inc. Ownco, Inc., is a small, owner-managed business. Young Fashions, Inc., represents a growing, nonpublic company with multiple locations. Vinco, Inc., is a large public company. Because most information systems involve computer processing (through a microcomputer, minicomputer, or mainframe), each of these three hypothetical companies uses some form of computer processing. Furthermore, appendix A, *Case Study: Fawn Exercise Products, Inc.*, contains a case study that discusses general and application computer controls in detail. Through these illustrations, presented in *italics* throughout, the Audit Guide describes how an auditor's procedures to obtain the understanding and assess control risk may differ from audit to audit.

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[1] *Internal Control—Integrated Framework* (the COSO Report), may be obtained by calling the AICPA Order Department at (800) 862-4272 and requesting product number 990009WK.

TABLE OF CONTENTS

Chapter 1

Overview of Statement on Auditing Standards No. 55, Consideration of Internal Control in a Financial Statement Audit, *as Amended by SAS No. 78*

1.01 The second standard of fieldwork is defined in SAS No. 55, *Consideration of Internal Control in a Financial Statement Audit* (AICPA, *Professional Standards,* vol. 1, AU sec. 319), as amended by SAS No. 78, *Consideration of Internal Control in a Financial Statement Audit: An Amendment to SAS No. 55*, as follows:

> A sufficient understanding of internal control is to be obtained to plan the audit and to determine the nature, timing, and extent of tests to be performed.

This chapter provides an overview of the second standard of fieldwork and SAS No. 55. It defines internal control, describes the objectives and components of internal control, and highlights the auditor's responsibilities for understanding an entity's internal control, assessing control risk,[1] and designing substantive tests. The final section of this chapter provides an overview of the remainder of this Audit Guide.

Definition of Internal Control

1.02 *Internal control*[2] is a process—effected by an entity's board of directors, management, and other personnel—designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (*a*) reliability of financial reporting, (*b*) effectiveness and efficiency of operations, and (*c*) compliance with applicable laws and regulations.

1.03 Internal control consists of the following five interrelated components:

- *Control environment* sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure.
- *Risk assessment* is the entity's identification and analysis of relevant risks to achievement of its objectives, forming a basis for determining how the risks should be managed.
- *Control activities* are the policies and procedures that help ensure management directives are carried out.
- *Information and communication* are the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities.

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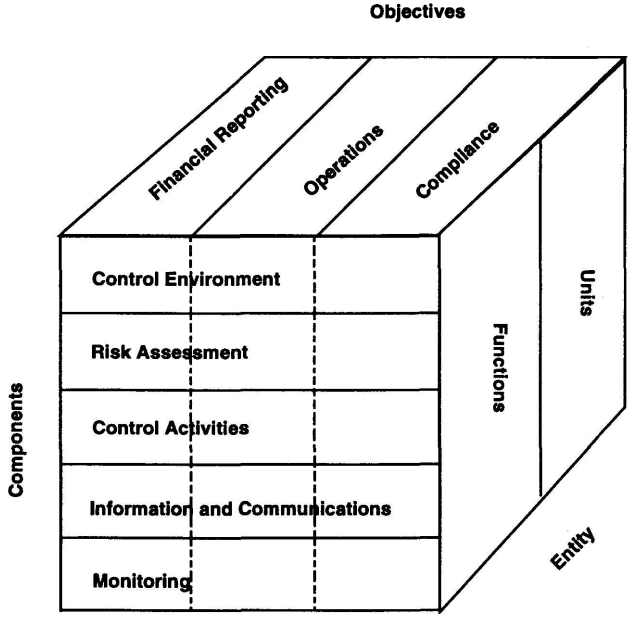
[1] In a financial statement audit, the auditor assesses inherent and control risks to evaluate the likelihood that material misstatements could occur in the financial statements. The auditor's risk assessment differs from the entity's risk assessment. The purpose of an entity's risk assessment is to identify, analyze, and manage risks that affect entity objectives.

[2] *Internal control* also may be referred to as *internal control structure.*

- *Monitoring* is a process that assesses the quality of internal control performance over time.

Relationship Between Objectives and Components[3]

1.04 There is a direct relationship between objectives, which are what an entity strives to achieve, and components, which represent what is needed to achieve the objectives. In addition, internal control is relevant to the entire entity, or to any of its operating units or business functions. This relationship is depicted as follows:



1.05 Although an entity's internal control addresses objectives in each of the categories referred to in paragraph 1.02, not all of these objectives and related controls are relevant to an audit of the entity's financial statements. Also, although internal control is relevant to the entire entity or to any of its operating units or business functions, an understanding of internal control relevant to each of the entity's operating units and business functions may not be necessary.

Financial Reporting Objective

1.06 Generally, controls that are relevant to an audit pertain to the entity's objective of preparing financial statements for external purposes that are fairly presented in conformity with generally accepted accounting principles or with a comprehensive basis of accounting other than generally accepted accounting principles.[4]

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[3] *Internal Control–Integrated Framework* applies to all aspects of an entity's internal controls. Paragraph 1.05 and on describe how this framework is applied in an audit of the financial statements.

[4] The phrase "comprehensive basis of accounting other than generally accepted accounting principles" is defined in SAS No. 62, *Special Reports* (AICPA, *Professional Standards*, vol. 1, AU sec. 623.04). Hereafter, reference to generally accepted accounting principles in this Guide includes, where applicable, an other comprehensive basis of accounting.

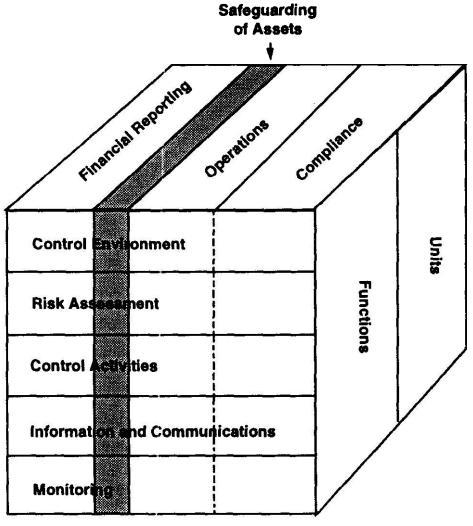
Operations and Compliance Objectives

1.07 The controls relating to operations and compliance[5] objectives may be relevant to an audit if they pertain to data the auditor evaluates or uses in applying auditing procedures. For example, controls pertaining to nonfinancial data that the auditor uses in analytical procedures, such as production statistics, or pertaining to detecting noncompliance with laws and regulations that may have a direct and material effect on the financial statements, such as controls over compliance with income tax laws and regulations used to determine the income tax provision, may be relevant to an audit.

1.08 An entity generally has controls relating to objectives that are not relevant to an audit and therefore need not be considered. For example, controls concerning compliance with health and safety regulations or concerning the effectiveness and efficiency of certain management decision-making processes (such as the appropriate price to charge for the entity's products or whether to make expenditures for certain research and development or advertising activities), although important to the entity, ordinarily do not relate to a financial statement audit.

Safeguarding of Assets

1.09 Internal control over safeguarding of assets against unauthorized acquisition, use, or disposition may include controls relating to financial reporting and operations objectives. This relationship is depicted as follows:



In obtaining an understanding of each of the components of internal control to plan the audit, the auditor's consideration of safeguarding controls is generally limited to those relevant to the reliability of financial reporting. For example, use of a lockbox system for collecting cash or passwords for limiting access to accounts receivable data files may be relevant to a financial statement audit. Conversely, controls to prevent the excess use of materials in production generally are not relevant to a financial statement audit.

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[5] An auditor may need to consider controls relevant to compliance objectives when performing an audit in accordance with SAS No. 74, *Compliance Auditing Considerations in Audits of Governmental Entities and Recipients of Governmental Financial Assistance* (AICPA, *Professional Standards*, vol. 1, AU sec. 801).

Application of Components to a Financial Statement Audit

1.10 The division of internal control into five components provides a useful framework for auditors to consider the impact of an entity's internal control in an audit. However, it does not necessarily reflect how an entity considers and implements internal control. Also, the auditor's primary consideration is whether a specific control affects financial statement assertions rather than its classification into any particular component.

1.11 The five components of internal control are applicable to the audit of every entity. The components should be considered in the context of—

- The entity's size.
- The entity's organization and ownership characteristics.
- The nature of the entity's business.
- The diversity and complexity of the entity's operations.
- The entity's methods of transmitting, processing, maintaining, and accessing information.
- Applicable legal and regulatory requirements.

Understanding Internal Control

1.12 SAS No. 55 requires the auditor to obtain a sufficient understanding of the control environment, risk assessment, control activities, information and communication, and monitoring to plan the audit. This understanding of internal control components should be used to—

- Identify types of potential misstatements.
- Consider factors that affect the risk of material misstatement.[6]
- Design substantive tests.

1.13 The level of understanding of each component that the auditor should obtain varies according to—

- The complexity and sophistication of the entity's operations and systems and the industry in which it operates.
- The auditor's previous experience with the entity.
- The assessment of inherent risk (that is, the susceptibility to material misstatement).
- The auditor's judgment about materiality.
- The preliminary audit strategy.

1.14 Paragraphs 1.15 through 1.29 provide an overview of the five internal control components and the auditor's understanding of the components relating to a financial statement audit. A more detailed discussion of these components is provided in chapter 2.

Control Environment

1.15 The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the following:

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[6] Financial statements are materially misstated when they contain misstatements whose effect, individually or in the aggregate, is important enough to cause them not to be presented fairly, in all material respects, in conformity with generally accepted accounting principles. The auditor's consideration of materiality is a matter of professional judgment and is influenced by the auditor's perception of the needs of a reasonable person who will rely on the financial statements.

- Integrity and ethical values
- Commitment to competence
- Board of directors or audit committee participation
- Management's philosophy and operating style
- Organizational structure
- Assignment of authority and responsibility
- Human resource policies and practices

1.16 The auditor should obtain sufficient knowledge of the control environment to understand management's and the board of directors' attitude, awareness, and actions concerning the control environment concerning both the substance of controls and their collective effect. The auditor should concentrate on the substance of controls rather than their form because controls may be established but not acted upon. For example, management may establish a formal code of conduct but act in a manner that condones violations of that code.

1.17 When obtaining an understanding of the control environment, the auditor considers the collective effect on the control environment of strengths and weaknesses in various control environment factors. Management's strengths and weaknesses may have a pervasive effect on internal control. For example, owner-manager controls may mitigate a lack of segregation of duties in a small business, or an active and independent board of directors may influence the philosophy and operation style of senior management in larger entities. However, human resource policies and practices directed toward hiring competent financial and accounting personnel may not mitigate a strong bias by top management to overstate earnings.

Risk Assessment

1.18 An entity's risk assessment for financial reporting purposes is its identification, analysis, and management[7] of risks relevant to the preparation of financial statements that are fairly presented in conformity with generally accepted accounting principles. For example, risk assessment may address how the entity considers the possibility of unrecorded transactions or identifies and analyzes significant estimates recorded in the financial statements. Risks relevant to reliable financial reporting also relate to specific events or transactions.

1.19 Risks relevant to financial reporting include external and internal events and circumstances that may occur and adversely affect an entity's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements.[8] Risks can arise or change due to circumstances such as the following:

- Changes in operating environment
- New personnel
- New or revamped information systems

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[7] *Internal Control–Integrated Framework* defines such management as that involving judgment based on assumptions about the risk and reasonable analysis of costs associated with reducing the level of risk.

[8] These assertions are discussed in SAS No. 31, *Evidential Matter* (AICPA, *Professional Standards*, vol. 1, AU sec. 326).

- Rapid growth
- New technology
- New lines, products, or activities
- Corporate restructuring
- Foreign operations
- Accounting pronouncements

1.20 The auditor should obtain sufficient knowledge of the entity's risk assessment process to understand how management considers risks relevant to financial reporting objectives and decides about actions to address those risks. This knowledge might include understanding how management identifies risks, estimates the significance of the risks, assesses the likelihood of their occurrence, and relates them to financial reporting.

1.21 An entity's risk assessment differs from the auditor's consideration of audit risk in a financial statement audit. The purpose of an entity's risk assessment is to identify, analyze, and manage risks that affect entity objectives. In a financial statement audit, the auditor assesses inherent and control risks to evaluate the likelihood that material misstatements could occur in the financial statements.

Control Activities

1.22 Control activities are the policies and procedures that help ensure that management directives are carried out. They help ensure that necessary actions are taken to address risks to achievement of the entity's objectives. Control activities have various objectives and are applied at various organizational and functional levels. Generally, control activities that may be relevant to an audit may be categorized as policies and procedures that pertain to the following:

- Performance reviews
- Information processing
- Physical controls
- Segregation of duties

1.23 The auditor should obtain an understanding of those control activities relevant to planning the audit. As the auditor obtains an understanding of the other components, he or she is also likely to obtain knowledge about some control activities. For example, in obtaining an understanding of the documents, records, and processing steps in the financial reporting information system that pertain to cash, the auditor is likely to become aware of whether bank accounts are reconciled. The auditor should consider the knowledge about the presence or absence of control activities obtained from the understanding of the other components in determining whether it is necessary to devote additional attention to obtaining an understanding of the control activities to plan the audit. Ordinarily, audit planning does not require an understanding of the control activities related to each account balance, transaction class, and disclosure component in the financial statements or to every assertion relevant to them.

Information and Communication

1.24 The information system relevant to financial reporting objectives, which includes the accounting system, consists of the methods and records es-

tablished to record, process, summarize, and report entity transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity. The quality of system-generated information affects management's ability to make appropriate decisions in controlling the entity's activities and to prepare reliable financial reports.

1.25 Communication involves providing an understanding of individual roles and responsibilities pertaining to internal control over financial reporting.

1.26 The auditor should obtain sufficient knowledge of the information system relevant to financial reporting to understand—

- The classes of transactions in the entity's operations that are significant to the financial statements.
- How those transactions are initiated.
- The accounting records, supporting information, and specific accounts in the financial statements involved in the processing and reporting of transactions.
- The accounting processing involved from the initiation of a transaction to its inclusion in the financial statements, including electronic means (such as computers and electronic data interchange) used to transmit, process, maintain, and access information.
- The financial reporting process used to prepare the entity's financial statements, including significant accounting estimates and disclosures.

In addition, the auditor should obtain sufficient knowledge of the means the entity uses to communicate financial reporting roles and responsibilities and significant matters relating to financial reporting.

Monitoring

1.27 An important management responsibility is to establish and maintain internal control. Management monitors controls to consider whether they are operating as intended and that they are modified as appropriate for changes in conditions.

1.28 Monitoring is a process that assesses the quality of internal control performance over time. It involves assessing the design and operation of controls on a timely basis and taking necessary corrective actions. This process is accomplished through ongoing activities, separate evaluations, or various combinations of the two. In many entities, internal auditors or personnel performing similar functions contribute to the monitoring of the entity's activities. Monitoring activities may include using information from communications from external parties, such as customer complaints and regulators' comments, that may indicate problems or highlight areas in need of improvement.

1.29 The auditor should obtain sufficient knowledge of the major types of activities the entity uses to monitor internal control over financial reporting, including how those activities are used to initiate corrective actions. When obtaining an understanding of the internal audit function, the auditor should follow the guidance in paragraphs 4 through 8 of SAS No. 65, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements* (AICPA, *Professional Standards*, vol. 1, AU sec. 322).

Procedures to Obtain the Understanding

1.30 In performing procedures to obtain an understanding of internal control, the auditor should determine how internal controls are designed and whether they have been placed in operation.

1.31 Whether a control has been *placed in operation* is different from its *operating effectiveness*. In obtaining knowledge about whether controls have been placed in operation, the auditor determines that the entity is using them. Operating effectiveness, on the other hand, is concerned with how the control was applied, the consistency with which it was applied, and by whom. For example, an auditor would be able to determine that a budgetary reporting system had been placed in operation by seeing that budgetary reports have been produced. However, whether the budgetary reporting system was operating effectively would depend on how those reports are used and by whom. SAS No. 55 does not require the auditor to obtain knowledge about operating effectiveness as part of the understanding of internal control.

1.32 The auditor often obtains an understanding of internal control through previous experience with the entity and procedures such as—

- Inquiries of appropriate management, supervisory, and staff personnel.
- Inspection of documents and records.
- Observation of an entity's activities and operations.

1.33 The nature and extent of procedures the auditor chooses to perform to obtain the understanding will vary depending on the size and complexity of the entity, previous experience with the entity, the nature of the particular control involved, and the nature of the entity's documentation of specific controls.

Documenting the Understanding

1.34 SAS No. 55 requires auditors to document their understanding of internal control. The form and extent of documentation is flexible. Generally, the more complex an entity's internal control and the more extensive the procedures performed to obtain the understanding, the more extensive the auditor's documentation should be. For example, in a small, owner-managed entity, the auditor might document his or her understanding of internal control in the form of a memorandum. In contrast, for an entity with a complex computer system, the auditor might use questionnaires or flowcharts.

Assessing Control Risk

1.35 Control risk is the risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by an entity's internal controls. Assessing control risk is the process of evaluating the effectiveness of an entity's internal control in preventing or detecting material misstatements in the financial statements. Control risk should be assessed in terms of financial statement assertions (existence or occurrence, completeness, rights and obligations, valuation or allocation, and presentation and disclosure). The conclusion reached as a result of assessing control risk is referred to as the assessed level of control risk. This level may vary along a range from maximum to minimum as long as the auditor has obtained evidential matter to support an assessment below maximum.

1.36 An auditor may assess control risk for some or all assertions at the maximum because controls (*a*) are not relevant to an assertion or (*b*) are not effective or are unlikely to be effective, or (*c*) because testing their effectiveness would be inefficient.

1.37 To assess control risk below the maximum, the auditor should—

- Identify specific controls relevant to specific assertions that are likely to prevent or detect material misstatements in those assertions.
- Perform tests of controls to evaluate the effectiveness of such controls.

1.38 Tests of controls are directed toward the evaluation of the effectiveness of the design and operation of internal controls. Tests of controls directed toward the effectiveness of the design of controls are concerned with whether a specific control is suitably designed to prevent or detect material misstatements in specific financial statement assertions. Tests of controls directed toward the operating effectiveness of a control are concerned with how the control was applied, the consistency with which it was applied during the audit period, and by whom it was applied. Internal controls can be either directly or indirectly related to an assertion. The more direct the relationship, the more effective that control may be in reducing control risk for an assertion.

1.39 Tests of controls ordinarily include the following procedures:

- Inquiries of appropriate entity personnel
- Inspection of documents and reports
- Observation of the application of specific controls
- Reperformance of the application of the control by the auditor

1.40 Evidence about the effectiveness of design and operation of internal controls may be obtained through—

- Procedures performed while obtaining the understanding that may serve as tests of controls.
- Planned tests of controls to support a lower assessed level of control risk.

Evidence From the Understanding

1.41 SAS No. 55 does not require the auditor to gain knowledge of the effectiveness of design and operation of internal controls when obtaining the understanding. However, it does require the auditor to obtain evidence about effective design and operation of controls when he or she assesses control risk below the maximum. Procedures performed to obtain the understanding may provide knowledge of the effectiveness of internal control. These procedures may serve as tests of controls and may be sufficient to support an assessed level of control risk below the maximum.

1.42 However, caution is necessary. Audit procedures performed in obtaining the understanding cannot support an assessment of control risk below the maximum unless they provide evidence about the effectiveness of the design and operation of internal controls.

Planned Tests of Controls

1.43 For some assertions, the auditor may plan and perform tests of controls to support a lower assessed level of control risk. These tests of controls are designed to provide more evidence about the effectiveness of the design and operation of relevant internal controls than that which the auditor might obtain

from the procedures performed to obtain the understanding as discussed in paragraphs 1.41 and 1.42. Such tests may be performed concurrently with obtaining an understanding or at a subsequent date.

Reconsidering the Preliminary Audit Strategy

1.44 During the audit, the auditor may conclude that it would be efficient to further reduce (and that evidence is likely to be available to support such a reduction) the assessed level of control risk for some assertions (particularly for assertions for which the auditor performed tests while obtaining an understanding sufficient to plan a primarily substantive approach or for which the auditor performed no tests of controls). For these assertions, the auditor should perform additional tests of controls to support a further reduction in the assessed level of control risk. This might also involve obtaining a more extensive understanding of internal control.

1.45 The assessed level of control risk should be consistent with the degree of assurance from evidence provided by tests of controls. That is, the lower the assessed level of control risk for an assertion, the more assurance is needed from evidence about the operating effectiveness of controls relevant to the assertion. If the evidence (that is, results of tests of controls) does not support the planned assessed level of control risk, the auditor should assess control risk higher than planned and revise the preliminary audit strategy.

Documenting the Control Risk Assessment

1.46 When the auditor assesses control risk at maximum, SAS No. 55 requires that the assessment itself be documented. The auditor does not need to document the basis for that assessment. Where the assessed level of control risk is below the maximum, SAS No. 55 requires the auditor to document the basis for his or her conclusion. Documentation of the basis for assessment should be evidenced by tests of controls applied to controls and their results. The auditor is not required to document how far below the maximum control risk is assessed. However, the auditor may choose to document the assessed level of control risk and may do so in quantitative terms (such as percentages) or in qualitative terms. This audit guide uses terms such as at the maximum, slightly below the maximum, moderate, and low for illustration purposes to describe assessments of control risk.

Effect of the Assessed Level of Control Risk on Substantive Tests

1.47 The assessed level of control risk for an assertion has a direct effect on the design of substantive tests. The lower the assessed level of control risk, the less evidence the auditor needs from substantive tests to form an opinion on the financial statements. Consequently, as the assessed level of control risk decreases, the auditor may modify substantive tests in the following ways:

- Changing their nature from more effective to less effective such as by using tests directed toward parties within rather than outside the entity
- Changing their timing, such as by performing them at an interim date rather than at year end
- Changing their extent, such as by selecting a smaller sample size

Ordinarily, the assessed level of control risk cannot be sufficiently low to completely eliminate the need to perform any substantive tests for all of the assertions relevant to significant account balances or transaction classes. Consequently, regardless of the assessed level of control risk, the auditor should perform substantive tests for significant account balances and transaction classes.

Overview of the Guide

1.48 A flowchart of the auditor's consideration of internal control and its relation to substantive tests for significant[9] assertions is presented in figure 1-1 to provide an outline of this Audit Guide. This flowchart recognizes that the auditor often adopts a preliminary audit strategy that influences the extent of understanding of internal control and design of tests of controls and substantive tests. It presents the two following strategies, which may be used for different assertions for significant account balances and classes of transactions:

- *Obtaining an understanding sufficient to plan a primarily substantive approach.* This strategy ordinarily results in an assessment of control risk at maximum or slightly below maximum. Procedures performed in obtaining the understanding may also provide evidence about the effective design and operation of internal controls. If so, such procedures serve as tests of controls. In this case, the auditor could reconsider the preliminary audit strategy and perform additional tests of controls to obtain additional evidential matter sufficient to support a further reduction in the assessed level of control risk (see page 2 of the flowchart).
- *Obtaining an understanding of internal control and planning to perform tests of controls sufficient to support a lower control risk assessment.*

Explanations and examples of these two strategies are presented in the remaining chapters of this Audit Guide.

1.49 Chapter 2 explains (*a*) the development of a preliminary audit strategy and (*b*) the auditor's understanding of internal control for each strategy. Chapter 2 also explains the required documentation of the auditor's understanding of internal control.

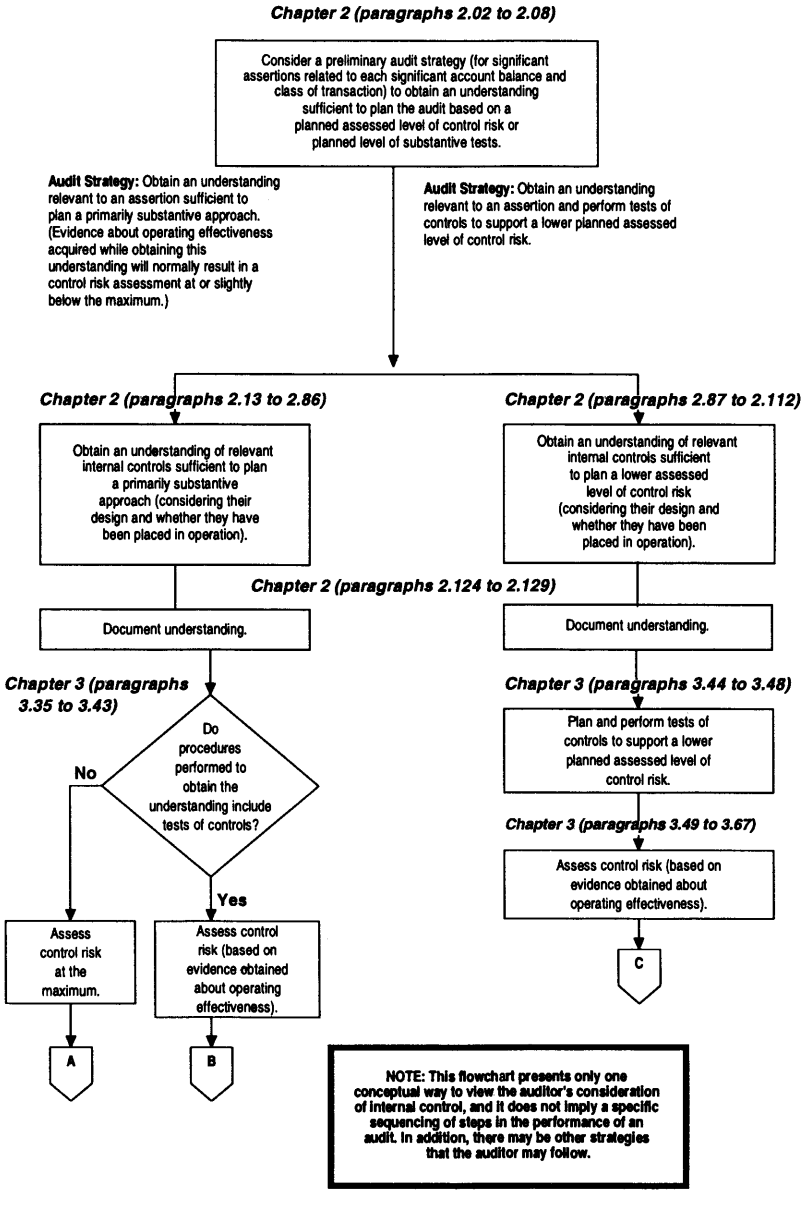
1.50 Chapter 3 discusses (*a*) the auditor's assessment of control risk based on the procedures performed to obtain the understanding of internal control, (*b*) how the procedures performed to obtain the understanding may be tests of controls, and (*c*) the degree of assurance provided by such tests. Chapter 3 then discusses the auditor's tests of controls to support a lower assessed level of control risk and provides examples of planned tests of controls related to a lower control risk assessment.

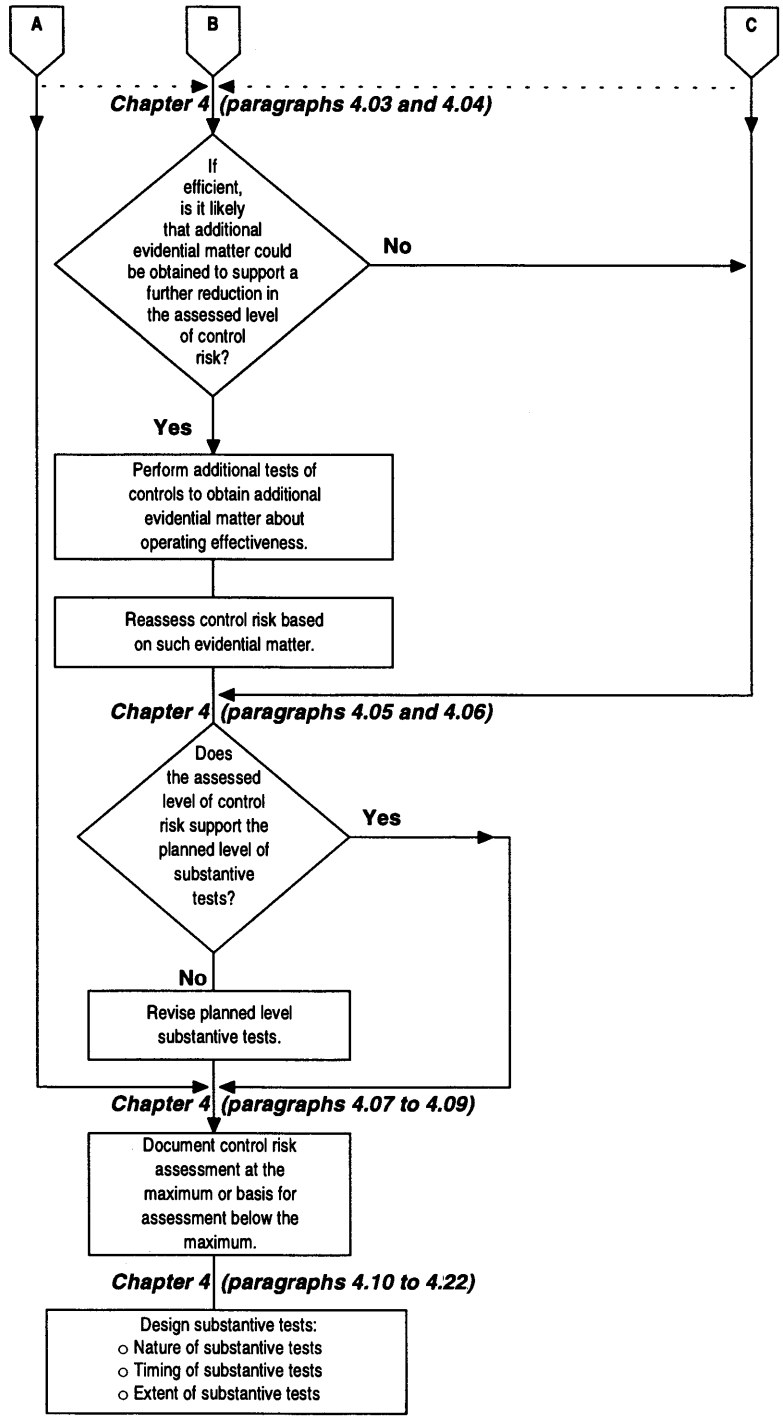
1.51 Chapter 4 discusses decisions to reconsider the preliminary audit strategy, either by considering a further reduction in the assessed level of control risk or by considering revisions to planned substantive tests because evidential matter did not support the planned substantive tests. Chapter 4 also

[9] Because the risk of material misstatement for some assertions may not be significant to an account balance or transaction class, the auditor does not need to assess control risk for every assertion related to an account balance or transaction class.

Figure 1-1

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction




A
B
C
Chapter 4 (paragraphs 4.03 and 4.04)
If efficient, is it likely that additional evidential matter could be obtained to support a further reduction in the assessed level of control risk?
No
Yes
Perform additional tests of controls to obtain additional evidential matter about operating effectiveness.
Reassess control risk based on such evidential matter.
Chapter 4 (paragraphs 4.05 and 4.06)
Does the assessed level of control risk support the planned level of substantive tests?
Yes
No
Revise planned level substantive tests.
Chapter 4 (paragraphs 4.07 to 4.09)
Document control risk assessment at the maximum or basis for assessment below the maximum.
Chapter 4 (paragraphs 4.10 to 4.22)
Design substantive tests:
o Nature of substantive tests
o Timing of substantive tests
o Extent of substantive tests

discusses and provides examples of the documentation of the auditor's control risk assessment and how that assessment affects the auditor's decisions about the nature, timing, and extent of substantive tests.

1.52 Chapter 4 is followed by a series of exhibits that provide example workpaper documentation of the understanding of internal control, of tests of controls, and of the auditor's control risk assessment.

1.53 A series of appendices supplement this audit guide. Appendix A contains an additional exhibit of how an auditor may obtain an understanding of internal control. This appendix was developed from the former Auditing Procedure Study *Consideration of the Internal Control Structure in a Computer Environment: A Case Study*. Appendix B discusses other Statements on Auditing Standards with which the auditor should be familiar to understand the second standard of fieldwork. It provides a perspective on the preliminary audit strategy and on the relationship of the auditor's consideration of internal control to other audit considerations. Appendix C is a reprint of SAS No. 55 as amended by SAS No. 78. Appendix D provides a glossary of selected terms and concepts included in this Guide.

Chapter 2

Understanding Internal Control

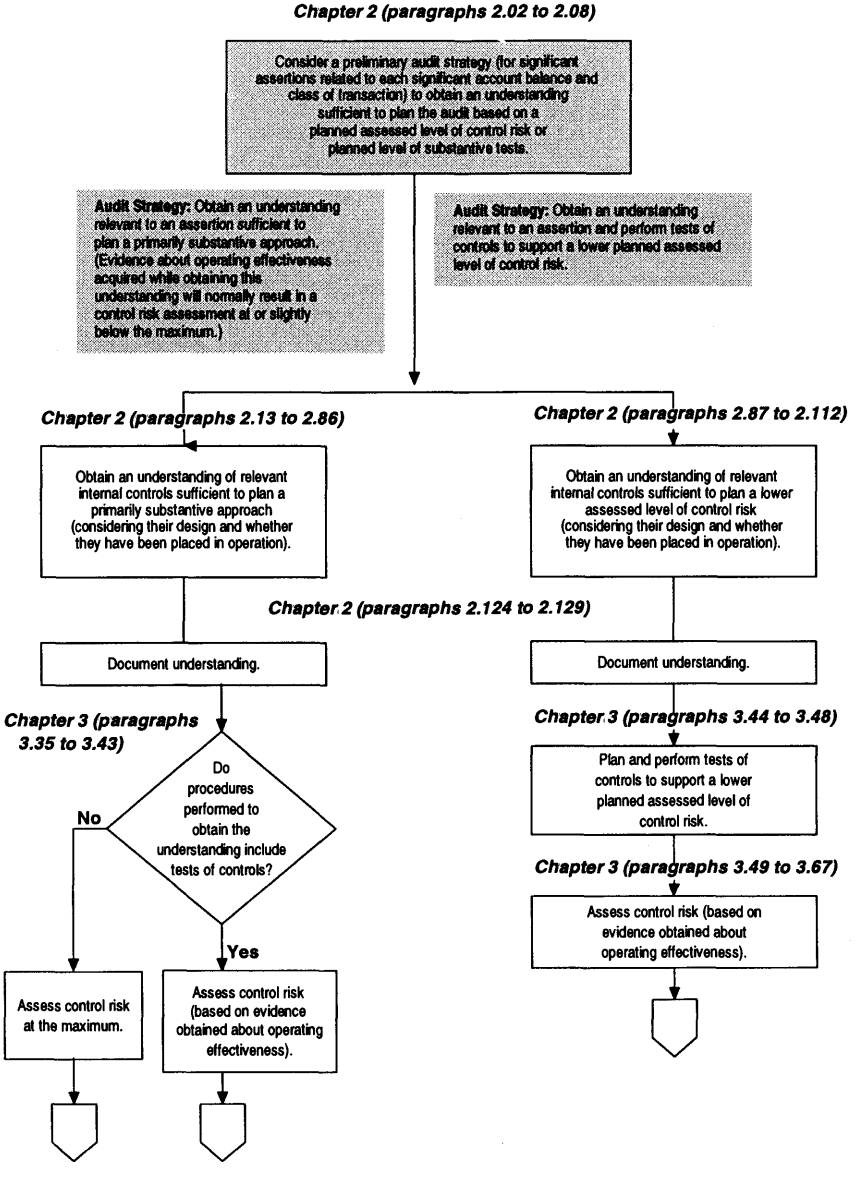
2.01 This chapter discusses—

- The auditor's preliminary audit strategy.
- The nature of the auditor's understanding: design and placed in operation.
- The understanding of internal control sufficient to plan a primarily substantive approach.
- The understanding of internal control sufficient to plan a lower control risk assessment.
- The nature and extent of procedures performed to obtain the understanding.
- Documentation of the understanding.

The flowchart introduced in chapter 1 and presented in figure 2-1 begins with the preliminary audit strategy. This strategy involves the consideration of audit risk for assertions at the account balance and transaction class level. Although it is not illustrated in the flowchart, the auditor also has a responsibility to assess the risk of material misstatement at the financial statement level in accordance with SAS No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities* (AICPA, *Professional Standards*, vol. 1, AU sec. 316). The consideration of risk at the financial statement level involves, among other matters, understanding the entity's business and considering the factors that affect the risk of material misstatement in the financial statements. It culminates with an overall audit plan including judgments about engagement staffing, extent of supervision, overall strategy for the expected conduct and scope of the audit (for example, the number of locations to be visited), and the degree of professional skepticism applied. This overall audit plan might affect the auditor's selection of a preliminary audit strategy at the account balance and transaction class level. For further guidance on the consideration of the risk of material misstatement at the financial statement level, see paragraphs B.16 through B.28 in appendix B.

Figure 2-1

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



Preliminary Audit Strategy

2.02 Figure 2-1 presents the flowchart that was introduced in chapter 1 and highlights the sections relating to the auditor's preliminary audit strategy. The auditor's ultimate objective in planning and performing a financial statement audit is to reduce audit risk to an appropriately low level to express an opinion on whether such financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows in conformity with generally accepted accounting principles. Because of the interrelationships among inherent risk, control risk, and detection risk, the auditor often will be able to choose among several possible audit approaches to audit an assertion applicable to a significant account balance or transaction class. When considering a preliminary audit strategy for some or all assertions, the auditor considers knowledge of the entity's business, the industry in which it operates, the nature and materiality of different account balances, previous experience with the industry, and other factors. The auditor then uses professional judgment in selecting the audit approach that will reduce audit risk to an appropriately low level.

2.03 The preliminary audit strategy is not a detailed design of audit procedures. Rather, it represents preliminary judgments about an audit approach that are updated as necessary during the conduct of the audit as the auditor confirms initial judgments or obtains evidence to the contrary. A preliminary audit strategy may reflect—

- The planned assessed level of control risk.
- The extent of the understanding of internal control.
- Tests of controls that may be performed (including procedures to obtain the understanding).
- The planned level of substantive tests to be performed to reduce audit risk to an appropriately low level, considering the planned assessed level of control risk.

2.04 For example, developing a preliminary audit strategy involves considering whether computer-produced records, such as an accounts receivable aged trial balance, will be used as evidential matter to support an assertion. The auditor may test the computer-produced information by either of the following:

- Testing the report substantively
- Understanding the computer control activities that are intended to ensure the completeness and accuracy of such reports and performing tests of controls to assess the effective design and operation of such control activities

2.05 The auditor should obtain a sufficient understanding of each of the five components of the entity's internal control to plan the audit of the entity's financial statements. An understanding of internal control is necessary, regardless of the auditor's preliminary audit strategy for an assertion. In planning the audit, such knowledge should be used to—

- Identify types of potential misstatement.
- Consider factors that affect the risk of material misstatement.
- Design substantive tests.

2.06 In making a judgment about the nature and extent of the understanding needed to plan the audit, the auditor considers the following:

- Knowledge from previous audits
- The understanding of the industry in which the entity operates
- Assessments of inherent risk
- Judgments about materiality
- The complexity and sophistication of the entity's operations and systems (including whether the method of controlling information processing is based on manual procedures independent of the computer or is highly dependent on computerized control activities)

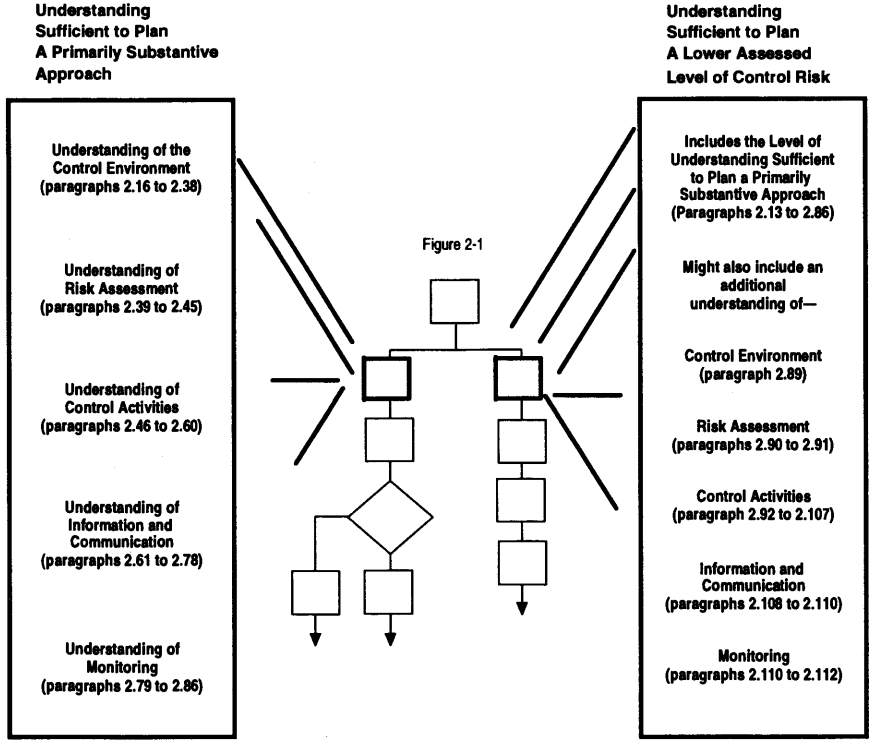
As an entity's operations and systems become more complex and sophisticated, it may be necessary to devote more attention to internal control components to obtain the understanding of them that is necessary to design effective substantive tests. Discussing each of the internal control components separately facilitates discussion of their nature and how the auditor considers these components in obtaining the necessary understanding. The auditor's primary consideration, however, is whether a control affects financial statement assertions rather than its classification into any particular category.

2.07 An entity's control components consist of controls that either have a pervasive effect on the organization or are designed to address specific account balances and classes of transactions or activities at the entity. Generally, an auditor will initially focus on the policies and procedures having a pervasive effect on the organization when obtaining an understanding of internal control. The auditor may obtain some knowledge of activity-level policies and procedures when obtaining an understanding of the pervasive effect of policies and procedures.

2.08 The level of understanding of internal control needed under the two preliminary audit strategies presented in figure 1-1 may be different. Figure 2-2 expands on components of internal control the auditor needs to understand for each strategy. To illustrate the application of these preliminary audit strategies, three sample companies are presented in the exhibits following chapter 4. In each of these sample companies, the assessments illustrated in the exhibits primarily relate to one significant class of transactions—sales and cash receipts. Ownco, Inc., represents a small, one-location, owner-managed business that does not have a complex organizational structure or a sophisticated operation or computer system. Young Fashions, Inc., represents a growing, nonpublic company with multiple locations. Company goals have focused on operations, and the financial reporting information system has not grown at the same pace as the organization. For these two companies, the auditors planned to assess control risk related to sales and cash receipts based only on the procedures performed to obtain the understanding sufficient to plan a primarily substantive approach. For other account balances and transaction classes, the auditors used other strategies. For example, the auditor of Ownco, Inc., chose a strategy of performing additional tests of controls to support a lower control risk assessment for inventories (see exhibit B-5 in chapter 5). A more complex public company, Vinco, Inc., is also presented. For audit efficiency reasons, Vinco's auditor chose to understand and test sufficient controls to support a lower assessed level of control risk for some assertions. See the "Summary of Exhibits" and exhibit A-1 in chapter 5 for further background on these three companies. Italics are used in the remainder of this Audit Guide when discussing the examples relating to these companies.

Figure 2-2

Understanding Internal Control



Nature of the Auditor's Understanding: Design and Placed in Operation

2.09 The understanding of internal control should include knowledge about the design of relevant controls and whether they have been placed in operation by the entity.

2.10 The auditor's knowledge about the design of relevant policies, procedures, or records provides an indication of the types of potential misstatements and the risk that such misstatements may be material. For example, an entity may not have any controls relating to the qualifications or training of accounting personnel (inadequate design). This lack of controls may allow the entity to hire unqualified personnel, which may affect the risk of material misstatement. In another case, an entity may have a procedure for the monthly reconciliations of its bank accounts. This procedure ordinarily is designed to detect and correct misstatements in the existence and completeness assertions for cash receipts, cash disbursements, and related account balances. However, if the design of the entity's procedure does not include adequate follow-up of reconciling items or a supervisory review, the risk of misstatements occurring and going uncorrected is affected. Risks such as these are caused by the poor design of internal control and should be considered by the auditor when designing substantive tests.

2.11 In obtaining knowledge about whether controls have been placed in operation, the auditor should determine that the entity is using them. In other words, is the control solely part of a policy manual or other entity documentation, or has it been implemented? For example, an entity may have designed a computer program and data-input procedures for preparation of customer invoices but may not have begun using the new program.

2.12 Whether a control has been placed in operation is different from its operating effectiveness. Operating effectiveness is concerned with how the control was applied, the consistency with which it was applied during the audit period, and by whom it was applied. Auditing standards do not require the auditor to obtain knowledge about operating effectiveness as part of the understanding of internal control. However, if procedures performed to obtain the understanding provide some evidence about the effectiveness of design and operation, they may serve as tests of controls (see chapter 3).

Understanding Sufficient to Plan a Primarily Substantive Approach

2.13 Figure 2-3 presents the flowchart that was introduced in chapter 1 and highlights the material covered in this section. One audit strategy that the auditor may consider when auditing an assertion for a significant account balance and transaction class involves—

- Obtaining the understanding sufficient to plan a primarily substantive approach.
- Considering whether procedures performed during this process provide evidential matter about operating effectiveness and thus serve as tests of controls (see chapter 3).

2.14 Effective audit planning requires that the auditor know what can go wrong in financial statements—that is, the auditor should identify the types of

material misstatement that could occur and assess the risk that they will occur. Internal control is an important source of information about the types and risks of potential material misstatement that could occur in financial statements. Additionally, these controls are a primary source of information about the specific processes, methods, records, and reports used in preparing the entity's financial statements. The auditor uses this information to design audit procedures that will provide reasonable assurance of detecting material misstatements. Designing effective audit procedures requires that the auditor have a sufficient understanding of internal control to assess the risk of material misstatement. Knowledge of the five components assists the auditor in the design of effective audit procedures. For example, the following factors identified while obtaining the understanding of internal control may have an effect on the risk of misstated revenues:

- Management pressure to improve operating performance
- Numerical sequence of shipping documents not accounted for
- Unrestricted access to input terminals

By understanding these risk factors, the auditor can design appropriate substantive tests.

2.15 The auditor has obtained the necessary understanding when the risk of material misstatement in assertions related to material financial statement components can be assessed and effective substantive procedures can be designed. Paragraphs 2.16 through 2.86 provide guidance on the nature and extent of the understanding of internal control considered sufficient to plan a primarily substantive approach. Assessing control risk at a lower level might involve obtaining an additional understanding of controls. (See paragraphs 2.87 through 2.112 for a discussion of the understanding needed to support a lower assessed level of control risk.)

Understanding of the Control Environment

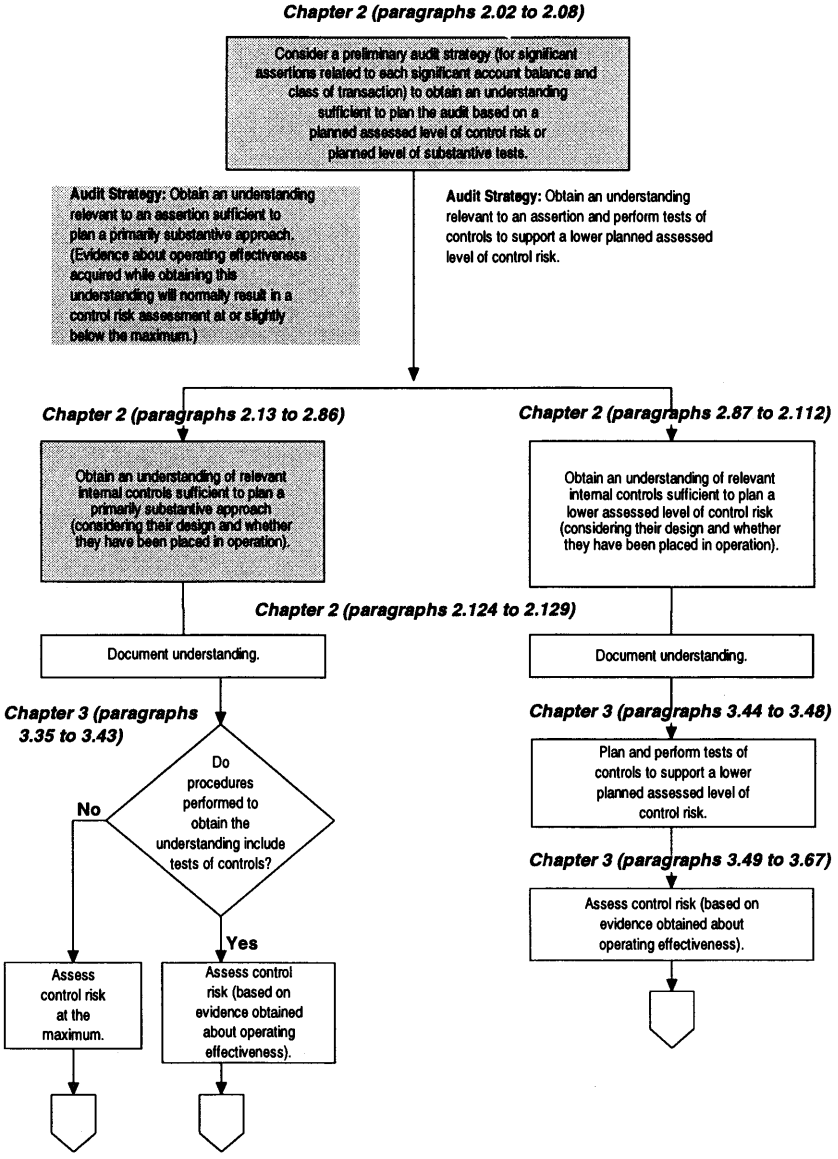
2.16 The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. The auditor should obtain sufficient knowledge of the control environment to understand management's and the board of directors' attitude, awareness, and actions concerning the control environment. The control environment includes such factors as—

- Integrity and ethical values.
- Commitment to competence.
- Board of directors or audit committee.
- Management's philosophy and operating style.
- Organizational structure.
- Assignment of authority and responsibility.
- Human resource policies and practices.

2.17 The applicability and importance of these factors are affected by the entity's size and its organization and ownership characteristics. Paragraphs 2.20 through 2.37 provide examples of how the control environment may affect the risk of material misstatement and how the extent of the auditor's understanding of the control environment may vary depending on the complexity and sophistication of the entity. The auditor should concentrate on the substance of management's policies, procedures, and related actions rather than

Figure 2-3

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests For Significant Assertions Related to Each Significant Account Balance and Class of Transaction



their form, because management may establish appropriate policies and procedures but not act on them.

2.18 The auditor should understand the collective effect of the control environment factors discussed in the following paragraphs as they relate to management's attitude, awareness, and actions concerning the control environment. However, the auditor does not need to understand each factor in every case or with the same degree of detail. The extent of understanding of various control environment factors is a matter of professional judgment and is influenced by the considerations discussed in paragraph 2.06. *For example, the data processing aspects of the control environment of Young Fashions, Inc., are considerably more sophisticated and complex than those of Ownco. The dispersion of authority and decentralization of data-entry points at Young Fashions result in more developed methods of assigning authority or responsibility. Because Young Fashions has a more complex control environment, the Young Fashions auditor obtained a more extensive understanding of relevant control environment factors to plan the audit.*

2.19 The auditor considers the collective effect on the control environment of strengths and weaknesses in various control environment factors. The overriding factors are usually strengths or weaknesses at high levels of management. For example, good owner-manager control methods may mitigate limited segregation of duties in a small business, or an active and independent board of directors may influence the philosophy and operating style of senior management in larger entities. However, human resource policies and practices directed toward hiring competent financial and accounting personnel may not mitigate a strong bias by top management to overstate earnings.

Integrity and Ethical Values

2.20 The effectiveness of internal control cannot rise above the integrity and ethical values of the people who create, administer, and monitor them. Integrity and ethical values are essential elements of the control environment, affecting the design, administration, and monitoring of other internal control components. Integrity and ethical behavior are the product of the entity's "corporate culture" (i.e., ethical and behavioral standards, how they are communicated, and how they are reinforced in practice). These values include management's actions to remove or reduce incentives and temptations that might prompt personnel to engage in dishonest, illegal, or unethical acts. These values also include the communication of entity values and behavioral standards to personnel through policy statements and codes of conduct and by example.

2.21 *In Ownco, Inc., the owner-manager dominates the company's control environment. Employees look to and follow the owner-manager's values whether expressed by formal communication or by example. In Young Fashions, a written policy exists on investments by key company personnel in vendors and suppliers. Other policies are not written, but are discussed in employee orientation. As entities increase in size, written policies relating to ethical standards generally increase in number, as is the case at Vinco, Inc. Management of Vinco is very conscious of setting a good example through words and actions.*

2.22 Although written policies are good, the auditor should consider how the actions of management affect the words of the policies of the entity on a day-to-day basis.

Commitment to Competence

2.23 Competence should reflect the knowledge and skills necessary to accomplish tasks that define an individual's job. Commitment to competence

includes management's consideration of the competence levels for particular jobs and how those levels translate into requisite skills and knowledge.

2.24 *The owner-manager of Ownco is committed to hiring experienced personnel because of limited segregation of duties. In conjunction with human resource policies and practices, Young Fashions defines tasks to be accomplished in a flexible manner to match its growth focus. In contrast, Vinco has formal written job descriptions for all supervisory personnel, and for jobs below supervisory level, job duties are clearly communicated. Vinco also uses job descriptions in hiring, training, and promotion decisions.*

Board of Directors or Audit Committee

2.25 An entity's control consciousness is influenced significantly by its board of directors or audit committee. Factors that influence the effectiveness of the board or audit committee include its independence from management, the experience and stature of its members, the extent of its involvement in and scrutiny of activities, the appropriateness of its actions, the degree to which difficult questions are raised and pursued with management, and its interaction with internal and external auditors. A smaller entity might not have independent or outside members on its board of directors; however, this may not affect the auditor's assessment of control risk.

2.26 *The board of directors of Ownco, Inc., is composed of family members who do not exert significant influence on monitoring the performance of the owner-manager or the organization (see exhibit B-1 in chapter 5). The key officers of Young Fashions, Inc., represent a majority of the board of directors, and an audit committee does not exist (see exhibit C-1 in chapter 5). At Vinco, Inc., however, the board of directors and audit committee have a significant influence on the control environment. Vinco has an audit committee composed entirely of outside directors who meet regularly with both internal and external auditors.*

Management's Philosophy and Operating Style

2.27 Management's philosophy and operating style encompass a broad range of characteristics. Such characteristics may include management's approach to taking and monitoring business risks, attitudes and actions toward financial reporting, and emphasis on meeting budget, profit, and other financial and operating goals. These characteristics have a significant influence on the control environment, particularly when management is dominated by one or a few individuals, regardless of the consideration given to the other control environment factors. For example, the auditor may be concerned about management's unduly aggressive attitude toward financial reporting. Not only might this cause the auditor to assess control risk at the maximum for some or all assertions, but it may heighten concerns about irregularities affecting certain assertions.

2.28 However, a dominant owner-manager does not necessarily cause the auditor to assess control risk at the maximum.[1] *As an owner-managed entity, the management of Ownco is dominated by one individual. Jones, the owner-*

[1] The auditor's control risk assessment is based on relevant controls. An assessment of control risk would not ordinarily be made for individual components of internal control. The auditor considers the combined aspects of the control environment, risk assessment, control activities, information and communication, and monitoring when assessing control risk. Chapters 3 and 4 provide a detailed discussion and examples of the auditor's assessment of control risk.

manager, demonstrates a positive attitude toward the control environment (see exhibit B-1 in chapter 5). He demonstrates a moderate to conservative attitude toward accepting business risks and is more concerned about taxes than reported earnings. Jones uses information generated by a financial reporting information system to monitor performance and compare it with that of prior years. His review of accounting reports encourages accounting employees to work with greater care, which reduces the risk of material misstatement. Jones also performs many control activities, such as checking the accuracy of disbursements and reviewing periodic physical inventories. These factors help to mitigate concerns about the lack of segregation of duties because of limited personnel. Although Jones is concerned about income taxes, the auditors did not view the possible bias to misstate income as a significant risk, because of the otherwise positive control environment.

2.29 *At Young Fashions, Inc., key decisions are made by a close group of top management that represents a majority of the board of directors (see exhibit C-1 in chapter 5). Management has been at the forefront of rapid changes in fashion trends; however, this affected the auditor's concerns about the valuation of inventories. Management of Young Fashions closely monitors inventories and operating results. Although management views budgets as objective management tools, it is concerned about growth in reported earnings. Accordingly, this factor may create some pressure or bias toward the overstatement of earnings and, therefore, affect the auditor's concerns about the risk of material misstatement.*

Organizational Structure

2.30 An entity's organizational structure provides the framework within which its activities for achieving entitywide objectives are planned, executed, controlled, and monitored. Establishing an organizational structure includes considering key areas of authority and responsibility and appropriate lines of reporting. An entity develops an organizational structure suited to its needs. The appropriateness of an entity's organizational structure depends, in part, on its size and the nature of its activities.

2.31 *Ownco, Inc., is an example of a simple organizational structure (see exhibit B-1 in chapter 5). The owner-manager dominates a single-location enterprise. The owner-manager is responsible for setting and monitoring policy. In this case, Jones reviews key matters upon his return from an absence. Jones also is responsible for all key decisions regarding computer processing.*

2.32 *In contrast, Vinco, Inc., is a multidivision public company (see exhibit D-1 in chapter 5). In this case, the auditor obtained an understanding of the involvement of senior management and outside directors in decision-making and in setting the tone of the organization. With multiple operating locations, the auditor also obtained knowledge of the functional responsibilities of the divisions and of the reporting relationships within the entity. Key operating decisions at Vinco are centralized with senior management. The auditor also obtained an understanding of the organization of the data processing department, including the reporting relationship of the head of data processing to senior management and the lines of responsibility within the department.*

Assignment of Authority and Responsibility

2.33 Assignment of authority and responsibility includes how authority and responsibility for operating activities are established. It also includes pol-

icies relating to appropriate business practices, knowledge and experience of key personnel, and resources provided for carrying out duties. In addition, it includes policies and communications directed at ensuring that all personnel understand the entity's objectives, know how their individual actions interrelate and contribute to those objectives, and recognize how and for what they will be held accountable.

2.34 *At Ownco, the owner-manager delegates few significant decisions, reflecting the importance of the owner-manager's influence on the control environment. Employee job descriptions are informal. Jones has chosen a computer system that uses purchased software; changes cannot be made to this software (see exhibit B-1 in chapter 5).*

2.35 *At Young Fashions, divisional management participates with key officers in business decision-making, but authority primarily rests with senior management. Management pays significant attention to inventory control and closely monitors the sales, production, and shipping aspects of divisional operations. Senior management, however, has delegated authority for data processing decisions to the data processing manager, who oversees the maintenance of systems documentation and the making of changes to purchased software. The data processing manager also is responsible for computer access and security. Although a formal security policy does not exist, the data processing manager has performed an assessment of sensitive programs and data files and determined that access restrictions are appropriate. The company generally uses vendor-authorized consultants to make system changes; the data processing manager has, on occasion, made simple changes (see exhibit C-1 in chapter 5).*

Human Resource Policies and Practices

2.36 Human resource policies and practices affect an entity's ability to employ sufficient competent personnel to accomplish its goals and objectives. Human resource policies and practices include an entity's policies and procedures for hiring, orientating, training, evaluating, counseling, promoting, compensating, and taking remedial action. For example, standards for hiring the most qualified individuals, with emphasis on educational background, prior work experience, past accomplishments, and evidence of integrity and ethical behavior, demonstrate an entity's commitment to competent and trustworthy people. Recruiting practices that include formal, in-depth employment interviews and informative and insightful presentations on the entity's history, culture, and operating style send a message that the entity is committed to its people. Personnel policies that communicate prospective roles and responsibilities and that provide such training opportunities as seminars, simulated case studies, and role-playing exercises indicate expected levels of performance and behavior. Rotation of personnel and promotions driven by periodic performance appraisals demonstrate the entity's commitment to the advancement of qualified personnel to higher levels of responsibility. Competitive compensation programs that include bonus incentives serve to motivate and reinforce outstanding performance. Disciplinary actions send a message that violations of expected behavior will not be tolerated.

2.37 *Ownco, Inc., represents a company with nominal turnover of personnel, and the owner-manager has devoted significant attention to hiring and retaining competent individuals. Jones believes that hiring experienced personnel is particularly important because there are few layers of supervisory personnel and, therefore, few independent checks of employees' work (see exhibit B-1 in chapter 5). Young Fashions, Inc., has established an environment in which low*

wages result in higher turnover and peak-season workloads affect the extent of training and supervision of employees, thereby creating significant time pressures. These human resource policies and practices may have a significant effect on the risk of material misstatement, particularly for those divisions affected by such human resource problems. All human resource practices for the information processing department are the responsibility of the information processing manager, who tries to hire personnel with significant data processing experience rather than train entry-level personnel (see exhibit C-1 in chapter 5).

Understanding of the Control Environment Versus the Other Four Components

2.38 An entity's control environment has a pervasive effect on the organization, whereas the other four control components are more likely to contain significant factors that are designed to address specific account balances and classes of transactions. As a result, the auditor generally focuses the understanding of the other four components on specific balances and classes. Figure 2-4 presents several accounts for a typical manufacturer that vary significantly in nature, size, and complexity. These characteristics result in differences in the extent of the understanding of the other four control components that may be needed to plan an audit and are explained in the following sections on the other four control components.

Effect of Account Characteristics on the Auditor's Understanding of Internal Control

Account Balance (Transaction Class)	Example Account Characteristic	Extent of Understanding that May Be Needed to Plan the Audit
Accounts Receivable (Revenue)	• Large balance relative to total assets • Large number of customer accounts and transactions • Several significant inherent risks associated with revenue recognition policies, completeness and cutoffs, and realization • Complex and detailed computer systems for processing transactions and maintaining records	• Entity control environment factors • Significant classes of transactions • Risk assessment factors • Monitoring activities • Revenue recognition policies • Significant activities in the initiation, processing, and reporting of transactions (e.g., order entry, shipping, billing, cash receipts) • Selected control activities (e.g., completeness controls, reconciliations of control account to detail, evaluation of past-due accounts)
Inventory (Purchases and Shipping)	• Large balance relative to total assets • Complexity of inventory and number of items in inventory, depending on the nature of the business • Significant inherent risks associated with complex pricing, receiving and shipping, cutoffs, and product obsolescence • Accounting system based on periodic physical inventory counts	• Entity control environment factors • Risk assessment factors • Monitoring activities • Significant classes of transactions (particularly in manufacturing entities) • Inventory pricing policies • Significant activities in the initiation, processing and reporting of transactions (e.g., accumulation of costs, inventory movement, inventory relief) • Selected control activities (e.g., completeness controls, cutoff procedures, physical counts including compilation and pricing)

Long-Term Debt	• Large balance relative to total assets • Small number of debt instruments and few transactions during the year • Inherent risks associated with appropriateness of accounting principles (off balance sheet financing) and compliance with debt covenants • Simple accounting records (general ledger accounts supported by legal documents, journal entries, and other source documents)	• Entity control environment factors • Risk assessment factors • Significant accounting records (legal documents, general ledger accounts) and processing and reporting of transactions
Prepaid Expenses	• Small balance relative to total assets • Small number of account balances and transactions • No significant risks • Simple accounting records (general ledger accounts supported by schedules, journal entries, and other source documents)	• Entity control environment factors • Nature of the account balance • Monitoring activities

Understanding of Risk Assessment

2.39 Risk assessment for financial reporting purposes is an entity's identification, analysis, and management of risks relevant to the preparation of financial statements that are fairly presented in conformity with generally accepted accounting principles. For example, risk assessment may address how the entity considers the possibility of unrecorded transactions or identifies and analyzes significant estimates recorded in the financial statements. Risks relevant to reliable financial reporting also relate to specific events or transactions.

2.40 Risks relevant to financial reporting include external and internal events and circumstances that may occur and adversely affect the entity's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. Once risks are identified, management considers their significance, the likelihood of their occurrence, and how they should be managed. Management may initiate plans, programs, or actions to address specific risks or it may decide to accept a risk because of cost or other considerations. Risks can arise or change due to circumstances such as the following:

- Changes in operating environment—Changes in the regulatory or operating environment can result in changes in competitive pressures and significantly different risks.
- New personnel—New personnel may have a different focus on or understanding of internal control.
- New or revamped information systems—Significant and rapid changes in information systems can change the risk relating to internal control.
- Rapid growth—Significant and rapid expansion of operations can strain controls and increase the risk of a breakdown in controls.
- New technology—Incorporating new technologies into production processes or information systems may change the risk associated with internal control.
- New lines, products, or activities—Entering into business areas or transactions with which an entity has little experience may introduce new risks associated with internal control.
- Corporate restructurings—Restructurings may be accompanied by staff reductions and changes in supervision and segregation of duties that may change the risk associated with internal control.
- Foreign operations—The expansion or acquisition of foreign operations carries new and often unique risks that may impact internal control. For example, additional or changed risks from foreign currency transactions.
- Accounting pronouncements—Adoption of new accounting principles or changing accounting principles may affect risks in preparing financial statements.

2.41 The entity's risk assessment process and the auditor's risk assessment as discussed in SAS No. 47, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*, vol. 1, AU sec. 312), are different. However, the entity's risk assessment process may affect the auditor's risk assessment.

2.42 Risk assessment deals with how the entity manages risks that would affect their objective of preparing reliable financial statements. An auditor's pro-

cedures to assess whether a risk assessment process is placed in operation are generally of an inquiry nature. For example, the auditor may ask accounting personnel what accounts they believe are the most difficult to become satisfied with as they prepare the financial statements. The auditor may also consider asking the same questions of executives outside of the accounting department.

2.43 *At Ownco, Inc., the auditor asked Pat Willis, bookkeeper, and Jones about which financial statement components were the most difficult to become satisfied with as they prepared and reviewed the financial statements. In addition, the auditor determined that Ownco did not introduce any new products or begin new operations during the current year. Ownco did purchase a microcomputer and a turnkey accounting software package (see exhibit B-1 in chapter 5).*

2.44 *At Young Fashions, Inc., management has implemented a five-year strategic plan for the company that includes objectives and analyzes risk factors. The organizational structure allows for the timely communication and identification of risks.*

2.45 *Vinco, Inc., represents a company that has a strong risk assessment process for identifying and analyzing risks associated with financial reporting objectives in preparing the business plan and has established appropriate mechanisms to identify risks in a timely manner (see exhibit D-2 in chapter 5). This risk assessment process consists of open communication channels including holding meetings with senior management and obtaining external information.*

Understanding of Control Activities

2.46 Control activities are policies and procedures that help ensure that necessary actions are taken to address risks to achieve the entity's objectives. Control activities have various objectives and are applied at various organizational and functional levels.

2.47 Generally, control activities that may be relevant to an audit may be categorized as policies and procedures pertain to the following:

- Performance reviews—These control activities include reviews of actual performance versus budgets, forecasts, and prior period performance; relating different sets of data—operating or financial—to one another, together with analyses of the relationships and investigative and corrective actions; and review of functional or activity performance, such as a bank's consumer loan manager's review of reports by branch, region, and loan type for loan approvals and collections.
- Information processing—A variety of controls are performed to check accuracy, completeness, and authorization of transactions. The two broad groupings of information systems control activities are general controls and application controls. General controls commonly include controls over data center operations, system software acquisition and maintenance, access security, and application system development and maintenance. These controls apply to mainframe, minicomputer, and end-user environments. Application controls apply to the processing of individual applications, help ensure that transactions are valid, properly authorized, and completely and accurately processed.
- Physical controls—These activities encompass the physical security of assets, including adequate safeguards over access to assets and records such as secured facilities and authorization for access to computer programs and data files and periodic counting and comparison with

amounts shown on control records. The extent to which physical controls intended to prevent theft of assets are relevant to the reliability of financial statement preparation, and therefore the audit, depends on the circumstances such as when assets are highly susceptible to misappropriation. For example, these controls would ordinarily not be relevant when any inventory losses would be detected pursuant to periodic physical inspection and recorded in the financial statements. However, if for financial reporting purposes management relies solely on perpetual inventory records, the physical security controls would be relevant to the audit.

- Segregation of duties—Assigning different people the responsibilities of authorizing transactions, recording transactions, and maintaining custody of assets is intended to reduce the opportunities to allow any person to be in a position to both perpetrate and conceal errors or irregularities in the normal course of his or her duties.

2.48 As the auditor obtains an understanding of the other four internal control components (control environment, risk assessment, information and communication, and monitoring), he or she is also likely to obtain knowledge about some control activities. For example, in obtaining an understanding of the documents, records, and processing steps in the accounting system that pertain to cash, the auditor is likely to become aware of whether bank accounts are reconciled. The auditor should consider the knowledge about the presence or absence of control activities obtained from the understanding of the other four internal control components in determining whether it is necessary to devote additional attention to obtaining an understanding of control activities to plan the audit. Except as described in paragraph 2.55, the auditor generally is not required to devote additional attention to understanding control activities.

2.49 Ordinarily, audit planning does not require an understanding of the control activities related to each account balance, transaction class, and disclosure component in the financial statements or to every assertion relevant to them. After considering such matters as the knowledge obtained from previous audits, the understanding of the industry in which the entity operates, the assessment of inherent risk, judgments about materiality, and the complexity and sophistication of the entity's operations and systems, the auditor should determine whether the understanding of internal control is sufficient to enable him or her to identify types of potential misstatements, consider factors that affect the risk of material misstatement, and design substantive tests.

2.50 Most financial reporting information systems involve some computer processing—whether microcomputer, minicomputer, or mainframe. Each of the three sample companies illustrated in the exhibits uses some form of computer processing. Although the objectives of computer and manual systems are the same, control activities take on unique characteristics in a computer environment. Paragraph 2.94 discusses various types of control activities in a computer environment and their interrelationships. The remainder of this section discusses and illustrates the understanding of certain manual and computerized control activities obtained by the auditors of Ownco and Young Fashions while obtaining an understanding of the other four internal control components.

2.51 *At Ownco, Inc. (see exhibit B-2 in chapter 5), the auditor obtained an understanding of the following control activities while obtaining an understanding the other four internal control components:*

- *Owner-manager approval of customer credit*
- *Computer matching of sales orders and shipping reports before the sales invoices are prepared*
- *Manual follow-up procedures for unmatched sales orders and shipping reports*
- *Owner-manager review of billings, sales, and various computer-generated sales summaries*
- *Procedures to reconcile accounts receivable subsidiary ledgers with the general ledger*
- *Owner-manager review of the accounts receivable aged trial balance and follow-up on past-due accounts*
- *Owner-manager follow-up on statements disputed by customers*

In addition, the auditor identified (see exhibit B-4 in chapter 5) specific risks of misstatement because of the following inadequacies:

- *No control activities exist to ensure that all transactions are posted to the journals and the general ledger*
- *No specific review of adjustments made to accounting records exists*

2.52 In an owner-managed organization, good owner-manager control may significantly mitigate the effects of a lack of segregation of duties. If an owner-manager monitors performance, reviews bank reconciliations, or reviews and approves disbursements, the risk of misstatement may be significantly reduced.

2.53 *At Young Fashions, Inc. (see exhibit C-2 in chapter 5), the auditor obtained an understanding of the following control activities while obtaining an understanding of the other four internal control components:*

- *Credit manager approval of sales orders*
- *Data processing manager periodic review of an access-violation report that reports computer-access violations, such as data processing personnel using utility programs to modify data files or accounts receivable clerks accessing accounts receivable master files*
- *Sales manager review and approval of changes to the master price file*
- *Manual follow-up*[2] *of items over five days old on the computer-exception reports of unmatched sales orders, bills of lading, and packing slips*
- *Computer check of numerical sequences of sales orders, bills of lading, packing slips, and sales invoices*
- *Matching of sales order, bill of lading, packing slip, and invoice before transactions are posted*
- *Manual procedures to reconcile accounts receivable subsidiary ledgers with the general ledger*

In many circumstances, this understanding may be sufficient to plan the audit.

2.54 *The auditors for both Ownco and Young Fashions determined that it was not necessary to devote additional attention to understanding control activities to plan the audit. The understanding of control activities obtained while obtaining an understanding of the other four internal control components*

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[2] As discussed later in paragraph 2.96, the effectiveness of a control activity that includes a manual review of a computer-produced exception report often is related to the effectiveness of the programmed control activities over the production of the report.

(see exhibits B-2 and C-2 in chapter 5) was considered adequate to identify types of potential misstatement, understand the factors that affect the risk of material misstatement, and design substantive tests. At Young Fashions, the auditor planned to visit sufficient operating locations to plan an audit approach based on a planned assessed level of control risk of slightly below the maximum. An alternative audit strategy for Young Fashions that requires a greater understanding of control activities (particularly computer control activities) is discussed later in paragraphs 2.113 through 2.115.

Understanding of Information and Communication

2.55 The information system relevant to financial reporting objectives, which includes the accounting system, consists of the methods and records established to record, process, summarize, and report entity transactions (as well as events and conditions) and to maintain accountability for the related assets and liabilities. The quality of system-generated information affects management's ability to make appropriate decisions in controlling the entity's activities and to prepare reliable financial statements.

2.56 An information system encompasses methods and records that—

- Identify and record all valid transactions.
- Describe on a timely basis the transactions in sufficient detail to permit proper classification of transactions for financial reporting.
- Measure the value of transactions in a manner that permits recording of their proper monetary value in the financial statements.
- Determine the time period in which transactions occurred to permit recording of transactions in the proper accounting period.
- Present properly the transactions and related disclosures in the financial statements.

2.57 Communication involves providing an understanding of individual roles and responsibilities pertaining to internal control over financial reporting. It includes the extent to which personnel understand how their activities in the financial reporting information system relate to the work of others and the means of reporting exceptions to an appropriate higher level within the entity. Open communication channels help ensure that exceptions are reported and acted on.

2.58 Communication takes such forms as policy manuals, accounting and financial reporting manuals, and memoranda. Communication can also be made orally and through the actions of management.

Understanding the Accounting System

2.59 The accounting system significantly affects the potential for material misstatements as well as the design of substantive tests. A well-designed accounting system that is placed in operation and operating effectively can provide reliable accounting data and prevent misstatements that otherwise could occur. On the other hand, a poorly designed accounting system may significantly increase the risk of misstatement. The auditor should consider this risk when designing substantive tests. In addition, the auditor's knowledge of the accounting system provides information about an entity's transactions (for example, information about the existence and nature of records and documents supporting the transactions) that is useful in planning audit procedures.

2.60 The auditor should obtain sufficient knowledge of the accounting system to understand—

- The classes of transactions in the entity's operations that are significant to the financial statements (paragraph 2.61).
- How those transactions are initiated (paragraphs 2.62 and 2.63).
- The accounting records, supporting documents, computer media, and specific accounts in the financial statements involved in the processing and reporting of transactions (paragraph 2.64).
- The accounting processing involved from the initiation of a transaction to its inclusion in the financial statements, including how the computer is used to process data (paragraphs 2.65 through 2.67).
- The financial reporting process used to prepare the entity's financial statements, including significant accounting estimates and disclosures (paragraph 2.68).

Significant account balances and classes of transactions

2.61 The auditor should obtain an understanding of the classes of transactions in the entity's operations that are significant to the financial statements. For less significant classes of transactions or account balances (note prepaid expenses in figure 2-4), an understanding of the controls that have a pervasive effect on the organization and the nature of the balance or class of transactions may be sufficient for the auditor to plan a primarily substantive audit. Each of the sample companies (Ownco, exhibits B-2 and B-3 in chapter 5; Young Fashions, exhibits C-2 and C-3 in chapter 5; and Vinco, exhibit D-3 in chapter 5) presents illustrations for one significant class of transactions (sales and cash receipts transactions) that involve considerable accounting processing. These examples focus on how the auditor's understanding may change as an accounting system gains in complexity. The auditor may not need as extensive an understanding of the components for a transaction class, such as long-term debt, because debt generally does not involve complex accounting processing.

How transactions are initiated

2.62 For a significant transaction class (such as sales), the auditor should understand how transactions are initiated. This may be a simple matter. For example, in some entities, a sales employee may complete a sales order upon accepting one by telephone. In other entities, such as financial institutions, certain transactions might be initiated by customers (for example, at an automatic teller machine) and recorded by computer. Other transactions, such as interest earned, periodically may be recorded automatically by the computer system.

2.63 *At Ownco (see exhibit B-2 in chapter 5) and Young Fashions (see exhibit C-2 in chapter 5), there is little difference in the ways in which sales transactions are initiated. Sales orders are written by sales employees, and the transactions are approved by the owner-manager and the credit manager, respectively.*[3] *At Ownco, transactions are entered into a microcomputer. The owner-manager, the bookkeeper, and the owner-manager's secretary have sole access. At Young Fashions, sales transactions are entered into remote terminals at divisional offices. The sales manager for Young Fashions reviews and approves changes to the master price file, including those reflected in the "was-is" report.*

[3] Although the auditor may obtain an understanding of how transactions are approved, an understanding of these control activities may not be needed to plan a primarily substantive approach.

Accounting records, supporting documents, computer media, and specific accounts

2.64 The understanding of the accounting records, supporting documents, computer media, and specific accounts in the financial statements involved in the processing and reporting of transactions varies substantially from one accounting system to another. In general, the auditor will want to identify—

- Source documents.
- The conversion of documents to computer media.
- The nature of computer files that are further processed in the flow of information to the general ledger and the financial statements.
- Documents created and further processed in the flow of information to the general ledger and the financial statements.
- Accounts (subsidiary or general ledger master files) affected by the transaction.
- Relevant accounting reports, journals, and ledgers produced in the flow of information to the general ledger and the financial statements.

An entity's accounting systems may create many documents, files, and reports that are useful for managing the organization, but the auditor need understand only those aspects that are relevant to the audit of the financial statements. For example, the same system that produces sales invoices and a sales journal may also produce a report of sales by salesperson. An understanding of this report may not be necessary to plan the audit. Neither is it necessary to understand how every copy of accounting documents may be used by the client. When an entity prepares numerous copies of a document, the auditor is concerned only with those relevant to the flow of transactions from initiation to inclusion in the financial statements. However, if the report of sales by the salesperson will be used to substantively test commission expense, the auditor needs to understand this report. *The understanding by the auditors of Ownco and Young Fashions of the accounting records, supporting documents, computer media, and accounts obtained is discussed in exhibits B-2 and C-2, respectively, in chapter 5.*

Accounting processing

2.65 While obtaining an understanding of the documents, files, and reports involved in the flow of information to the general ledger and the financial statements, the auditor should obtain an understanding of the accounting processing involved from initiation of the transaction to its inclusion in the financial statements, including how the computer is used to process data. This understanding involves knowledge of the ways in which transactions are valued, classified, recorded, and summarized in data files, journals, or ledgers. For some transactions, there may be several significant processing activities and accounting records, including the use of computer programs (for example, accounts receivable and inventory in figure 2-4). Other transactions may involve only limited processing activities performed manually (for example, long-term debt in figure 2-4). Understanding the accounting processing also involves understanding the information used for processing and when processing occurs. For example, when considering the completeness assertion, the auditor normally should understand whether transactions entered into a computer system are processed immediately or in batches and how frequently batches are processed.

2.66 *The records and methods of Ownco, Inc., that are involved in identifying and recording all valid credit sales include approved sales orders, shipping reports, and the bookkeeper's manual activities to investigate unmatched*

sales orders and shipping reports (see exhibit B-2 in chapter 5). The approved sales order and shipping report contain sufficient information to permit proper classification of the transaction, measure its monetary value, and determine the time period of the transaction. This information is input daily, and the computer prepares sales invoices and posts transactions to the ledgers and journals.

2.67 *Young Fashions, Inc., uses the computer for a greater amount of processing than does Ownco, Inc. (see exhibit C-2 in chapter 5). Source documents, such as sales orders and bills of lading, are manually prepared; however, master price information is maintained on a computer file, and the computer is used to generate packing slips, sales invoices, and reports of unmatched documents (sales orders, packing slips, and sales invoices). The auditor's understanding for the Young Fashions audit, therefore, included knowledge of the ways in which transactions and master files are accessed, when and how they are updated, and what processing is done by the computer.*

The financial reporting process

2.68 While gaining an understanding of the financial reporting process, the auditor may ascertain the extent of client procedures to prepare accounting estimates (when significant accounting estimates are called for) and information for significant disclosures. The auditor also should understand the way in which general ledger information is summarized to ascertain how the amounts and disclosures are reported in the financial statements.

Understanding of Communication

2.69 While obtaining an understanding of other components, the auditor also may obtain an understanding of communication among employees and interrelationships between employees and events. This understanding would result from interacting with employees, observing the communication flow, and making inquiries of employees.

2.70 *The communication flow at Ownco, Inc., is informal, the owner being hands-on oriented. Questions are asked of appropriate individuals in a timely manner (see exhibit B-1 in chapter 5). In contrast, Vinco, Inc., has a formal communication process, involving preparation of a monthly performance report to obtain communications to explain variances (see exhibit D-2 in chapter 5).*

2.71 External influences are exercised by parties outside an entity that affect an entity's operations and practices. They include monitoring and compliance requirements imposed by legislative and regulatory agencies and review and follow-up by parties outside the entity concerned with the entity's actions. External influences are ordinarily outside an entity's authority. Such influences, however, may heighten management's consciousness of and attitude toward the conduct and reporting of an entity's operations and prompt management to establish specific controls.

2.72 Examples of the types of external influences that the auditor usually understands are federal and state bank examiners who review the activities of financial institutions or lenders who audit accounts receivables pledged as collateral for loans. *Young Fashions' bank loan officer meets regularly with management to monitor the company's financial performance (see exhibit C-1 in chapter 5). In this instance, the influence of the bank loan officer heightens management's consciousness about taking and monitoring business risks.*

Understanding of Monitoring

2.73 Monitoring is a process that assesses the quality of internal control performance over time. It involves assessing the design and operation of con-

trols on a timely basis and taking necessary corrective actions. This process is accomplished through ongoing monitoring activities, separate evaluations, or a combination of the two.

2.74 Ongoing monitoring procedures are built into the normal recurring activities of an entity and include regular management and supervisory activities. Managers of sales, purchasing, and production at divisional and corporate levels are in touch with operations and may question reports that differ significantly from their knowledge of operations.

2.75 In many entities, internal auditors or personnel performing similar functions can contribute to the monitoring of an entity's activities through separate evaluations. They regularly provide information about the functioning of internal control, focusing considerable attention on evaluating the design and operation of internal controls. They communicate information about strengths and weaknesses and make recommendations for improving internal control.

2.76 Monitoring activities may include using information from communications from external parties. Customers implicitly corroborate billing data by paying their invoices or complaining about their charges. In addition, regulators may communicate with the entity concerning matters that affect the functioning of internal control, for example, examinations by bank regulatory agencies. Also, management may consider communications relating to internal control from external auditors in performing monitoring activities.

2.77 *At Ownco, Jones performs monitoring activities while reviewing reports to determine if internal control is operating properly (see exhibit B-1 in chapter 5). At Young Fashions, management obtains feedback on the operation of controls from discussions with a bank loan officer and as part of their review of reports and processes (see exhibit C-1 in chapter 5). At Vinco, management and the board of directors perform monitoring activities through ongoing monitoring and separate evaluations (see exhibit D-2 in chapter 5).*

Internal Audit Function

2.78 The internal audit function is established within an entity to monitor and evaluate the adequacy and effectiveness of internal control. For entities with an internal audit function, the auditor ordinarily should make inquiries of appropriate management and internal audit personnel about the internal auditors'—

- Organizational status within the entity.
- Application of professional standards.
- Audit plan, including the nature, timing, and extent of audit work.
- Access to records and any limitations on the scope of their activities.

2.79 After obtaining an understanding of the internal audit function, the auditor may —

- Conclude that the internal auditors' activities are not relevant to the financial statement audit and give no further consideration to the internal audit function.
- Identify relevant internal auditor activities, but conclude that it would not be efficient to consider further the work of the internal auditors.
- Decide that it would be efficient to consider how the internal auditors' work might affect the nature, timing, and extent of the audit. In this

case, the auditor should assess the competence and objectivity of the internal audit function as outlined in SAS No. 65, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements* (AICPA, *Professional Standards,* vol. 1, AU sec. 322).

In any event, the auditor may request direct assistance from the internal auditors. The auditor should then follow the guidance in paragraph 27 of SAS No. 65.

2.80 *Neither Ownco nor Young Fashions has an internal audit department. At Vinco, the auditor decided that it would be efficient to consider how the internal auditors' work might affect the nature, timing, and extent of audit procedures. The auditor then assessed the competence and objectivity of the internal audit function and determined the effect on the audit plan (see exhibit D-5, workpaper C-40, in chapter 5).*

Circumstances in Which the Auditor May Be Unable to Use a Primarily Substantive Approach

2.81 In the following circumstances, the auditor may not be able to perform an effective audit using a primarily substantive approach and may need to devote additional attention to understanding control activities to—

- Audit an assertion (particularly the completeness assertion).
- Plan a strategy that is not unreasonably costly.

2.82 The auditor may need to understand specific control activities to audit an assertion. For example, when auditing a not-for-profit organization with significant cash donations, the auditor may be unable to plan the audit for the completeness assertion for contributions without understanding (and testing) the control activities related to cash receipts. Similarly, if a financial institution or securities dealer has employees who engage in futures transactions, the auditor may need to understand (and test) the entity's control activities that provide assurance that all futures commitments are properly accounted for.

2.83 For some assertions, the auditor may conclude that it would be unreasonably costly and impractical to plan effective audit procedures based on a substantive approach. For example, when auditing past-due loans of a financial institution that uses computer-produced reports of such loans, the auditor may be unable to design appropriate substantive tests without knowledge of the specific control activities concerning the completeness and classification of loans. Because obtaining source documents to audit the completeness and classification of loans in a financial institution may be unreasonably costly, the auditor may decide to plan a lower assessed level of control risk and obtain an understanding of the specific computer application control activities designed to ascertain that all loans are included and properly classified in the listing. Computer application control activities, such as record counts or control totals, may help ensure that all loans are included in the listing. Programmed reasonableness tests and cross-footing tests may be designed to detect classification misstatements.

2.84 In another example, an entity may use a complex and sophisticated computer system to initiate and process certain transactions, and the auditor may determine that the only reasonable audit strategy for some assertions is to obtain an understanding and perform tests of controls sufficient to support a lower assessed level of control risk. In this situation, the auditor should devote

additional attention to understanding control activities, such as programmed control activities[4] and computer general control activities, to plan the audit.

2.85 To assess control risk at a lower level based on the operating effectiveness of programmed control activities, an understanding of the computer general control activities will usually be obtained. Such computer general control activities are policies or procedures that affect many applications and often pertain to the following:

- The development of new programs and systems
- Changes to existing programs and systems
- Computer operations
- Access to programs and data

2.86 The understanding of computer control activities to support a lower planned assessed level of control risk is discussed in paragraphs 2.92 through 2.106. This understanding would be considered necessary to plan the audit if the auditor determined that alternative audit strategies would be unreasonably costly. Manual follow-up activities in the planning of a primarily substantive audit are discussed in paragraphs 2.105 and 2.106.

Understanding Sufficient to Plan a Lower Assessed Level of Control Risk

2.87 Figure 2-5 presents the flowchart introduced in chapter 1 and highlights the material to be covered in this section. The auditor may choose a preliminary audit strategy for some assertions based on a lower planned assessed level of control risk. Supporting a lower planned assessed level of control risk might involve obtaining an understanding of additional controls beyond those considered necessary to plan a primarily substantive approach. This section explains and provides examples of the understanding sufficient to plan a lower assessed level of control risk.

2.88 This section also explains some computer control activities of internal control that the auditor might need to understand when the computer is used to process accounting transactions. Figure 2-6 summarizes these computer control activities. The auditor's understanding of computer control activities, however, often is affected by decisions about audit strategy and the planned assessed level of control risk. For example, the auditor should obtain an understanding of computer control activities if computer-produced records are used as evidence and the auditor does not plan to substantively test such records.

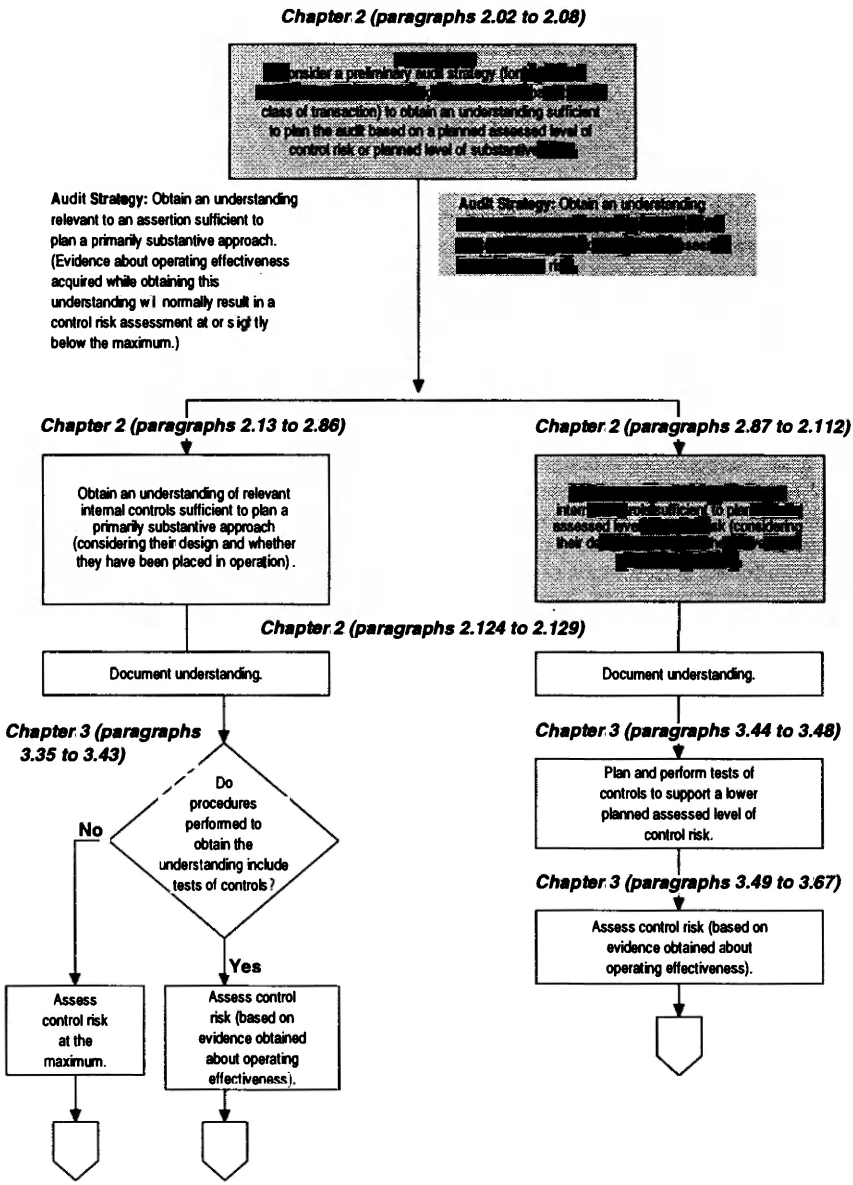
Understanding of the Control Environment

2.89 The discussions and examples provided in paragraphs 2.13 through 2.86 relate to the audit strategy of planning a primarily substantive approach. In many circumstances, that level of understanding of the control environment will be sufficient to plan a lower assessed level of control risk. For example, a positive control environment helps ensure that control activities are more likely

[4] Programmed control activities are part of individual computerized accounting applications, for example, programmed input validation controls for verifying customers' account numbers and credit limits.

Figure 2-5

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



to be well-designed and placed in operation. *The auditor of Young Fashions, Inc., may be able to modify the timing of substantive tests based on tests of controls to support a lower assessed level of control risk, with the same understanding of the control environment documented in exhibit C-1 in chapter 5.* However, for some assertions, a further understanding of certain control environment factors may be necessary if a lower assessed level of control risk is planned. For example, the auditor may choose to understand how the control environment factors differ in an entity with multiple locations.

Understanding of Risk Assessment

2.90 The understanding of risk assessment sufficient to plan a preliminary substantive approach was discussed in paragraphs 2.39 through 2.45. The understanding of risk assessment may be sufficiently comprehensive that an additional understanding of risk assessment may not be necessary.

2.91 However, the auditor may choose to understand the risk assessment process in greater depth when planning a lower assessed level of control risk or, alternatively, to focus on some assertions. Thus, the auditor might perform more extensive procedures, such as attending a monthly risk assessment meeting where risks are discussed, where financial reporting issues are identified, and where action plans are developed.

Understanding of Control Activities

2.92 Supporting a lower planned assessed level of control risk frequently involves obtaining an understanding of control activities beyond that considered necessary to plan a primarily substantive approach. Control activities often are more directly related to an assertion than are control environment controls, for example. As a result, they may be more effective in preventing or detecting misstatements. Designing substantive tests based only on an understanding of internal control sufficient to plan a primarily substantive approach may not be as efficient because—

- This approach would require more extensive audit procedures at each location of a multilocation entity.
- It may be necessary to perform audit procedures at (or closer to) the balance sheet date, which might not be efficient.
- It may be difficult to obtain the necessary source documents (accounting records) from remote locations (rather than computer-generated reports in a central location).
- Reports and other evidence used in the audit could be generated by the computer system, which would affect their completeness and accuracy. It may not be efficient to perform substantive tests to obtain sufficient evidential matter on this information.

2.93 In planning the audit, the auditor may identify assertions for which a lower assessed level of control risk is desired. For example, this often is appropriate for certain assertions relevant to accounts in the revenue class of transactions because of the complexity of accounting processing, the materiality of these accounts, and the large number of transactions processed. For these account balances, however, obtaining an understanding of additional control activities may not be necessary for every assertion. *Vinco, Inc., has complex accounting systems and control activities relevant to the assertions of completeness, existence, and occurrence for the revenue cycle (see exhibit D-3 in chapter*

5). Examples of this complexity are extensive automation from initiation of the transaction through recording in the general ledger, programmed control activities, on-line computer terminals at many locations, and use of computer-produced information for decision-making. For audit efficiency reasons, the auditor chose to understand controls sufficient to plan a lower assessed level of control risk.

2.94 As outlined in figure 2-6, control activities in a computerized environment generally comprise a combination of user control activities, computer application control activities (programmed control activities and manual follow-up procedures), and computer general control activities. When planning a lower assessed level of control risk, the auditor should consider the extent of the understanding of control activities that, when considered in conjunction with the understanding of the other four components, is needed. The following are some common alternatives for understanding control activities that, together with tests of such controls, may be sufficient to plan a lower assessed level of control risk:

- User control activities
- Computer application control activities (programmed control activities[5]
- Computer general control activities and manual follow-up activities

User Control Activities

2.95 An auditor planning a lower assessed level of control risk might consider an audit strategy involving understanding and testing user control activities. User control activities represent manual checks of the completeness and accuracy of computer output against source documents or other input. For example, an entity may have programmed procedures in a billing system that calculate sales-invoice amounts from shipping data and master-price files. The entity may also have user control activities to manually check the completeness and accuracy of the invoices. In many systems, user control activities relate only to the completeness of records and not to the accuracy of processing. User control activities may provide evidence that the programmed control activities operate effectively, in which case the auditor may choose to understand and test the user control activities. If these control activities are designed and operating effectively, these tests may support a lower control risk assessment.

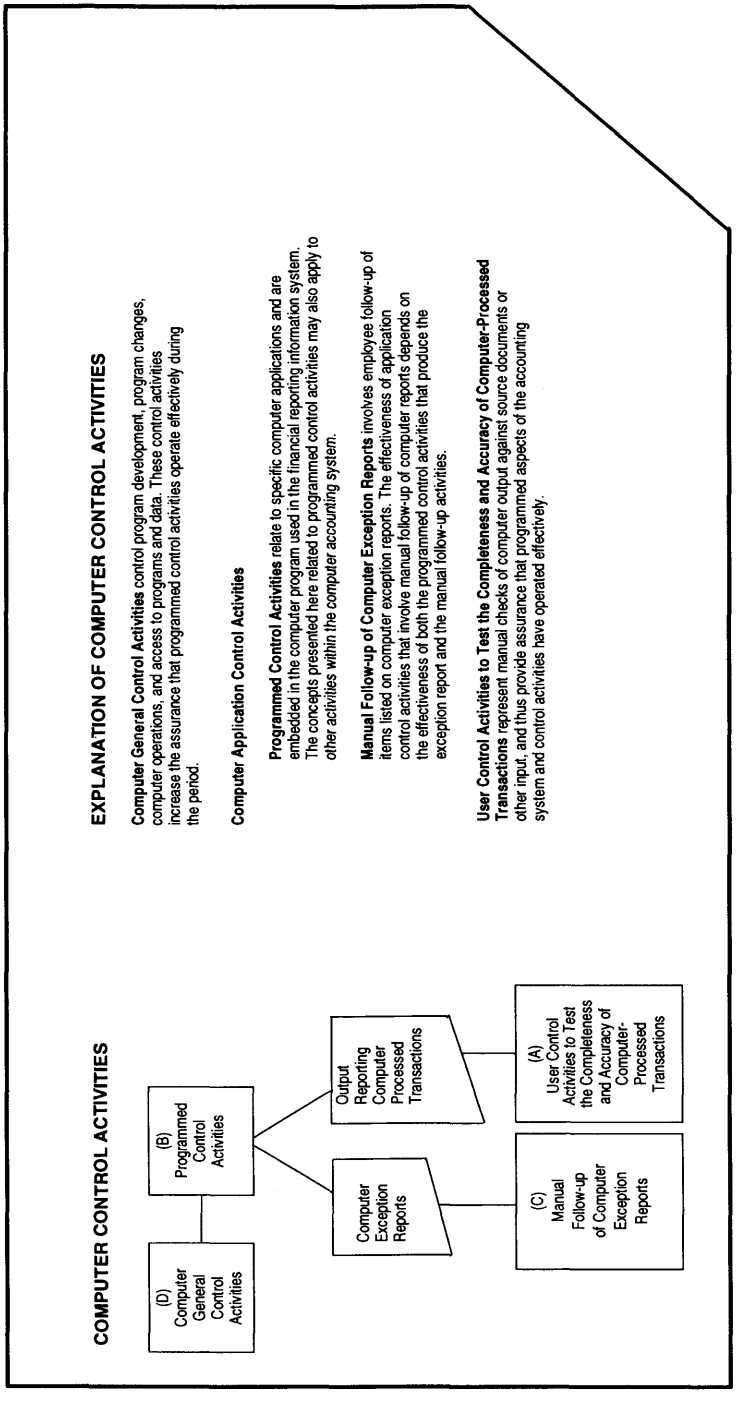
Programmed Control Activities and Manual Follow-up Activities

2.96 An auditor planning a lower assessed level of control risk might consider an audit strategy of understanding and testing programmed control activities and related manual follow-up activities. For example, the auditor may use computer-assisted audit techniques, such as generalized audit software or the processing of test data, to test the programmed control activities that produce an exception report. These tests provide evidence about the design and operation of programmed control activities. However, they do not provide evidence about the consistent application of the control activities throughout the audit period; they provide evidence only about the point in time when they are performed. It may be costly to perform such tests throughout the period to achieve a lower control risk assessment. Frequently, auditors find

[5] The concepts discussed in this guide related to programmed control activities may also apply to other procedures within the financial reporting information system.

Figure 2-6

General and Application Controls



that it is more efficient to follow the approach set forth in paragraph 2.97. The auditor also needs to understand and test the manual follow-up activities (that is, activities used to follow up on the items listed on the exception report) because the effectiveness of the control activities relates to both an accurate computer-produced exception report and an effective manual follow-up of the exceptions.

Computer General Control Activities and Manual Follow-up Activities

2.97 If computer general control activities operate effectively, there is greater assurance that programmed control activities are properly designed and function consistently throughout the period. Tests of computer general control activities, combined with tests of manual follow-up activities, often provide the evidential matter sufficient to plan a lower level of control risk. The auditor may plan to understand computer general control activities and perform tests of controls to obtain evidence that—

- Programs are properly designed and tested in development.
- Changes to programs are properly made.
- Adequate access controls reduce the risk of unauthorized changes to the program and data files.

The auditor should understand programmed control activities and obtain sufficient evidence about the effective design and operation of various computer general control activities to draw a conclusion about the effective design and operation of the programmed control activities. In addition, the auditor should understand and test the manual follow-up activities to obtain evidence that the entity adequately resolves exceptions raised by the programmed control activities. The degree to which the auditor may need to test programmed control activities depends on the effectiveness of computer general control activities, especially the effectiveness of controls over the development of and changes to programs.

2.98 *An example of this approach is the audit of Vinco, Inc., in which the planned assessed level of control risk is based, in part, on understanding programmed control activities, manual follow-up activities, and general control activities. The following are examples of programmed control activities performed by the billing program (see exhibit D-3 in chapter 5):*

- *Computer-generated batch totals of the number of cases shipped are compared with manually computed totals entered during data entry.*
- *The numerical sequence of bills of lading is checked, and any breaks in the sequence are reported.*
- *Bill-of-lading input fields (such as customer number and quantity shipped) are checked to ensure that they contain data.*
- *Check digits ascertain whether customer and product numbers are valid.*
- *Numeric and range controls determine whether customer-number, product-number, and quantity-shipped fields contain only numeric characters and are within prescribed ranges.*
- *Quantities actually shipped are compared to quantities scheduled for shipment.*

Differences detected by any of these activities are investigated and corrected.

2.99 Computer general control activities include controls over the development of new programs and systems, changes to existing programs and systems, computer operations, and access to programs and data.

2.100 Computer general control activities over the development of new programs and systems are intended to ensure that new application systems are suitably authorized, designed, and tested. These include such elements as user involvement in the design and approval of systems, checkpoints where users review the completion of various phases of the application, development of test data and testing of the program, user involvement in the review of tests of the programs, and adequate procedures to transfer programs from development to production libraries. *At Vinco, Inc., procedures performed to obtain the understanding of computer general control activities revealed that no new application systems related to significant financial statement assertions had been developed (see exhibit D-4 in chapter 5).*

2.101 Computer general control activities over changes to existing programs and systems are intended to ensure that modifications to application programs are suitably approved, designed, tested, and implemented. The issues associated with controls over program and system changes are the same as those related to the development of new applications and include such items as user involvement in the design and tests of changes, adequate testing of modified programs, adequate activities to transfer programs from development to production libraries, and adequate segregation of duties between programmers and production libraries. *At Vinco, Inc., these control activities include written approvals of changes by both the appropriate user department manager and the data processing manager, reports on program maintenance management, tests of program changes, and review of final revised program documentation (see exhibit D-4 in chapter 5).*

2.102 Computer general control activities over computer operations are intended to ensure that application programs are used properly and that the proper data files are used during processing. They involve the review of lists of regular and unscheduled batch jobs by operations management, use of menu-driven job control instruction sets, jobs executed only from the operator's terminal, and adequate procedures for managing and backing up data and program files. *The auditor's documentation of the understanding of control activities over computer operations is not illustrated for Vinco, Inc.*

2.103 Computer general control activities over access to programs and data are intended to prevent or detect unauthorized changes to programs and to data files supporting the financial statements and include program and data access, as well as physical access. Access to programs and data is generally controlled with software that limits (*a*) programmer access to production programs, live data files, and job control language; (*b*) operator access to source code and individual elements of data files; and (*c*) user access to defined programs and data files.

2.104 *Vinco's access control activities (see exhibit D-4 in chapter 5) include—*

- *Restricting access to the computer with a combination lock, segregating programmers from the computer room with no access to production programs or data files.*
- *Having no dial-in lines to the computer.*

Software control activities include—

- *Integrated computer librarian and security packages licensed by a reputable vendor.*
- *Company policies over the use of passwords.*

- *A general utility librarian package (GULP) that maintains control over production and development programs. Only changes initiated through GULP can be placed in production. In addition, GULP limits the ability to make production library changes to certain computer management personnel. GULP also prints transfer logs of all transfers to and from development and production libraries and prepares logs of when programs were compiled (that is, translated from source code to object code).*
- *A general access security package (GASP) that limits write access to production libraries, logs violations of programmed access, and maintains profiles of users and privileges and changes in users and their privileges.*

Manual Follow-up Activities When Planning a Primarily Substantive Approach

2.105 Paragraphs 2.92 through 2.104 discussed the understanding of control activities in computer systems and planned tests of controls sufficient to support a lower assessed level of control risk. The following example discusses circumstances in which the auditor plans an audit strategy that is primarily substantive in nature. In this illustration, an entity's programmed control activities consist of a computer process that matches sales orders and shipping documents. On a regular basis, the program produces an exception report of unmatched documents. When sales orders and shipping documents are matched, a sales invoice is generated. A user department employee follows up on the listed exceptions and makes inquiries about why, for example, goods have not been shipped for an outstanding sales order. In some cases, the manual follow-up activities are such that the employee follows up only on items listed on the report and does not obtain any information about the completeness and accuracy of the computer-produced report. In such circumstances, procedures related to the manual follow-up would not provide sufficient evidence about the effective operation of the programmed control activity to enable the auditor to assess control risk below the maximum.

2.106 In other circumstances, however, the manual follow-up activity might be placed in operation in such a way that the employee does, in fact, obtain information about the operation of the programmed control activities. For example, the employee's job function might include direct communication with the shipping department, sales personnel, and customers. Information obtained about the last sales orders issued, the last item shipped, open sales orders, and shipping status may provide information not only on the exceptions noted on the report, but also on the completeness and accuracy of the report. The employee might inquire of warehouse personnel about unfilled orders older than a specified period, inquire of sales management about customer inquiries on delayed shipments, and determine whether those items are included on the exception report. In this circumstance, the auditor may perform the following tests of controls while obtaining the understanding:

- Inquire of the employee about the manual follow-up activities (for example, whether items appear on the report on a timely basis, how long it takes for items to clear, and how often items that should have cleared do not clear from the report, based on the employee's knowledge).
- Corroborate inquiries of sales and shipping personnel regarding the accuracy of items listed as exceptions on the report.
- Examine some reports to determine that selected items appear on the report and clear on a timely basis.

If these tests of controls indicate that unmatched records appear on the report and clear in a timely manner, the auditor has evidence that the programmed control is operating effectively. These tests, however, do not directly test the programmed control activity, and evidence of consistent application of the control throughout the audit period depends on the extent to which the auditor examines and tests exception reports.

2.107 *The management of Vinco, Inc., has developed a detailed budgeting system, and its general ledger system produces monthly comparisons of budget with actual performance for each operating location and department (see exhibits D-2 and D-5, workpaper C-30, in chapter 5). Senior management has set guidelines for each department regarding the significance of budget variations that need to be explained. Explanations are due within one week from the time variances are identified and are carefully reviewed by the controller when developing a monthly performance report. The understanding of how this budget is developed and how variations are explained was considered useful by the auditor of Vinco in supporting a lower assessed level of control risk for the completeness and valuation assertions (see exhibit D-6 in chapter 5).*

Understanding of Information and Communication

2.108 The understanding of information and communication sufficient to plan a primarily substantive approach was discussed in paragraphs 2.55 through 2.72. This understanding for significant account balances and transaction classes normally includes an understanding of the accounting processing from initiation through the financial reporting process and communication. This includes an understanding of accounting records, supporting documents, and computer media, including the computer aspects presented in figure 2-6. This understanding of information and communication may be sufficiently comprehensive that an additional understanding of the financial reporting information system may not be necessary to plan a lower assessed level of control risk. *Sample documentation of the understanding of information and communication of Young Fashions, Inc., and Vinco, Inc., is presented in exhibits C-2 and D-3, respectively, in chapter 5.*

2.109 However, the auditor may determine that information contained in management reports that was not previously necessary to plan the audit may be relevant to a lower planned assessed level of control risk for some assertions. For example, the financial reporting information system may produce a sales report by inventory stock number for each sales region. Understanding the way in which information for this report is captured, processed, and reported by the financial reporting information system would not be necessary to plan the audit, if the auditor did not plan to use this report. If, however, the auditor decides to use information from this report when auditing the proper valuation of inventory at the lower of cost or market, he or she should obtain an understanding of the following aspects of the financial reporting information system:

- Which transactions or classes of transactions are included in the report
- How significant accounting data about those transactions are entered into and flow through the financial reporting information system
- The files that are processed
- The nature of processing involved in producing the report

Understanding of Monitoring

2.110 The understanding of monitoring sufficient to plan a primarily substantive approach was discussed at paragraphs 2.73 through 2.80. The un-

derstanding of monitoring may be sufficient to assess a lower level of control risk based on the auditor's understanding of internal control. However, for some assertions, a further understanding of certain monitoring functions may be necessary if a lower assessed level of control risk is planned.

2.111 The auditor also may choose to understand in greater detail the activities of the internal audit function. For planning purposes, the auditor ordinarily understands whether internal auditors perform functions relevant to the financial statement audit. The extent to which the auditor obtains an understanding of specific procedures performed by internal auditors is dependent on the auditor's consideration of specific assertions and the audit efficiencies that may be obtained by assessing control risk for those assertions at a lower level. For example, internal auditors in a financial institution may perform tests of controls that provide evidence about the effectiveness of internal control related to the valuation of loans receivable, or they may perform detailed tests and analyses of the entity's operations and expenses. Obtaining an understanding of such detailed procedures performed by internal auditors may be relevant to an audit strategy of planning a lower assessed level of control risk.

2.112 *Exhibits D-2 and D-5 in chapter 5 present a summary of both the additional understanding of the work of Vinco's internal auditors and related tests of controls. Vinco's external auditors obtained an additional understanding of the following:*

- *Internal auditors' workpapers related to rotating tests of inventory counts*
- *Compliance with company policies for investment of excess funds*
- *Fixed asset additions*
- *Compliance with purchasing policies and procedures.*

An Example: Understanding Additional Controls for Young Fashions, Inc.

2.113 *To illustrate how changes in audit strategy may affect the auditor's understanding of internal control, this discussion assumes that, in a subsequent year, Young Fashions, Inc., hired and trained additional personnel in Texas to correct the problems it was experiencing. In addition, management established and monitored formal policies for developing and modifying the revenue system. In this example, the auditor decides on an audit strategy that supports a change in the timing of substantive tests based on a lower assessed level of control risk.*[6]

2.114 *The auditor's understanding of the control environment, risk assessment, and monitoring components of Young Fashions (see exhibit C-1 in chapter 5) would probably not change because of the decision to modify the timing of substantive tests based on a lower assessed level of control risk. The understanding of the information and communication documented in exhibits C-2 and C-3 in chapter 5 should be adequate to plan the revised audit strategy. The*

[6] SAS No. 45, *Omnibus Statement on Auditing Standards—1983* (AICPA, *Professional Standards*, vol. 1, AU sec. 313, "Substantive Tests Prior to the Balance-Sheet Date"), indicates that assessing control risk below the maximum is not required for extending audit conclusions from an interim date to the balance sheet date. However, if the auditor does not intend to assess control risk below the maximum for the purpose of modifying the timing of substantive tests, he or she should consider whether the effectiveness of certain of the substantive tests to cover that period will be impaired.

auditor's understanding of the control environment reveals that senior management does not appear to be sensitive to the functional and technical limits of data processing. Management has delegated authority and responsibility to the data processing manager and is not actively involved in setting or monitoring policies. The chief financial officer reviews computer output primarily for the purpose of controlling operations.

2.115 *The major change in audit strategy relates to the understanding of control activities. In this example, the auditor determined that it would be efficient to understand and test computer control activities that, because of the control environment concerns discussed above, would likely support a moderate assessed level of control risk for certain assertions. This included obtaining an understanding of application control activities. In addition to the understanding of some computer application control activities documented in exhibit C-2 in chapter 5 (such as the computer-generated list of unmatched sales orders, bills of lading, packing slips, and sales invoices weekly and at month end for manual follow-up), the auditor obtained an understanding of programmed control activities that affect the processing of routine transactions such as control activities over input of valid data (for example, check digits or range controls or batch-control totals). In addition, the auditor obtained an understanding of the computer general control activities to determine whether there was adequate assurance that the programmed control activities operated effectively during the year. This increased level of understanding might be similar to that documented for Vinco, Inc., in exhibits D-3 and D-4 in chapter 5. The auditor also performed sufficient tests of controls to support the lower control risk assessment.*

Nature and Extent of Audit Procedures Performed to Obtain the Understanding

2.116 In obtaining an understanding of the controls that are relevant to audit planning, the auditor should perform procedures to provide sufficient knowledge of the design of the relevant controls pertaining to each of the five internal control structure components and whether they have been placed in operation. The auditor obtains that understanding of internal control through previous experience with the entity and the following:

- Inquiries of appropriate management, supervisory, and staff personnel
- Inspection of entity documents and records
- Observation of entity activities and operations

In making a judgment about the nature and extent of these procedures, the auditor considers the types of factors outlined in figure 2-7.

2.117 Knowledge of the types of misstatements occurring in prior audits (for example, whether they were associated with accounting estimates, whether they were routine errors that resulted from a lack of control consciousness, or whether they resulted from the lack of sufficient personnel to handle a heavy seasonal workload) influences the nature of inquiries about whether changes have occurred in internal control, including its controls and personnel, as well as the nature and extent of any such changes. In a continuing audit, the auditor may also have significant experience with and documentation of internal control to allow him or her to focus on system changes. For example, the auditor might use previous experience with commercially available software,

Examples of Factors That Affect the Nature and Extent of Procedures for an Understanding Sufficient To Plan the Audit

Example Factors	Effect on the Nature of Procedures	Effect on the Extent of Procedures
Previous Experience With the Entity		
Knowledge of prior misstatements	Procedures focus on changes, if any, in internal control to correct problems	
Prior permanent file documentation of the understanding	Inquiries about changes in internal control	Reduce extent of procedures to understand the design of internal control
Nature of the Entity's Documentation of Specific Controls		
Extensive client accounting manuals, flowcharts, or other internal control documentation	Focus on whether relevant controls have been placed in operation	Less extensive inquiry and observation to understand design and placed in operation
Nature of the Particular Control		
Internal auditors perform duties relevant to internal control	Procedures should be appropriate to understand the relevant work performed by internal auditors	More extensive procedures may be necessary to understand work performed by functions with internal audit
Size and Complexity of the Entity		
Complex organizational structure	Focus attention on methods of assigning authority and responsibility	More extensive procedures performed through the organization, such as inquiry of more personnel
Complex computer system	May need to understand computer general control activities	
Multiple locations		May perform more extensive procedures to ensure that systems at multiple locations have not changed

combined with knowledge of how the software was installed in the entity's financial reporting information system, to obtain an understanding of the features of internal control. Though previous experience may affect the nature and extent of procedures performed to obtain the understanding, the level of understanding should be sufficient to support the planned assessed level of control risk.

2.118 Some controls are documented in policy and procedure manuals, flowcharts, source documents, journals, and ledgers. In these cases, inspection of the documentation and inquiries of entity personnel may provide a sufficient understanding to plan the audit. For example, budgetary control activities normally provide documentation. Inspecting some documentation of the investigation of variances from budgets, together with making inquiries about the nature of the investigation, may be sufficient to understand the design of the control and whether it has been placed in operation.

2.119 *In a simple system, such as the revenue class of transactions depicted for Ownco, Inc., the auditor examined completed documents for selected transactions and made limited inquiries of employees who worked directly with the transactions. In this example, the auditor examined selected sales orders to determine whether they had been approved by the owner-manager and, as part of understanding controls over the completeness assertion, observed the open files and procedures to follow up on unmatched sales orders, shipping reports, and sales invoices (see exhibit B-6 in chapter 5).*

2.120 *In a more complex system, such as the revenue class of transactions depicted for Young Fashions, Inc., observation and examination are often more extensive. In this example, data about quantities ordered and quantities shipped are input at remote locations, and significant computer processing is involved. The auditor did not observe this process at every location; however, the auditor made inquiries about whether the same system was placed in operation at each location (see exhibit C-4 in chapter 5). Among other matters, the auditor made inquiries about how data were input, the type of data captured by the computer system, and how the master-price file was updated. During this process, the auditor made inquiries about and observed access to programs and data files and reviewed the computer output (that is, reports that were produced).*

2.121 Documentation may not be available for other controls. For example, the understanding of management's philosophy and operating style may be obtained through previous experience updated by inquiries of management and observation of their actions. *At Young Fashions, Inc., prior experience was updated by inquiries of the chief executive officer, chief operating officer, and chief financial officer, focusing on new developments in the current year. The auditor also made inquiries of middle-management personnel in a position to observe the degree to which management focused on growth in sales or earnings. In contrast, inquiries were less extensive at the owner-managed Ownco, Inc., because management and control are centralized in one individual. However, the auditor made inquiries of others in the organization to corroborate the owner-manager's representations. In both examples, the auditor also was able to make observations related to management's philosophy and operating style.*

2.122 In obtaining an understanding of the design of computer programmed control activities and whether they have been placed in operation, the auditor may make inquiries of appropriate entity personnel and inspect relevant systems documentation to understand control activities design; the au-

ditor may also inspect exception reports generated as a result of such control activities to determine that they have been placed in operation.

2.123 The auditor's assessment of inherent risk and judgments about materiality for various account balances and transaction classes also affect the nature and extent of the procedures performed to obtain the understanding. For example, the auditor may conclude that planning the audit of the prepaid insurance account does not require specific procedures to obtain the understanding of internal control.

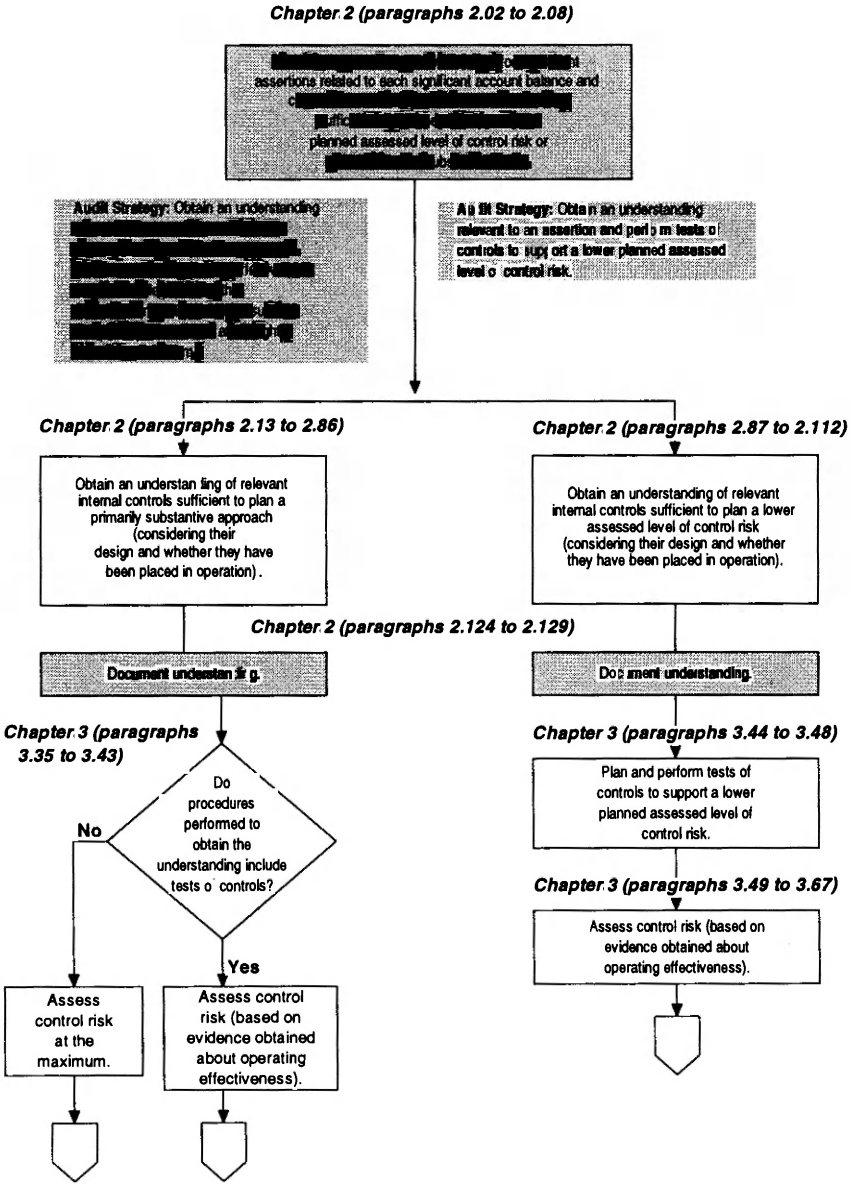
Documenting the Understanding

2.124 Figure 2-8 presents the flowchart introduced in chapter 1 and highlights the matters covered in this section. The auditor's documentation of internal control should reflect an understanding sufficient to plan the audit. For a business with a simple internal control structure, a memorandum may be adequate. Flowcharts, questionnaires, and the like are often used for documenting more complex internal control structures. However, the auditor is not required to document procedures performed to obtain the understanding.[7]

[7] These procedures should be documented, however, if they also serve as tests of controls.

Figure 2-8

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



2.125 The auditor may concurrently obtain and document the understanding. For example, if the auditor uses a questionnaire to acquire the understanding of internal control, completion of the questionnaire may be sufficient documentation. Similarly, the auditor may concurrently obtain an understanding of and document the risk assessment, control activities, information and communication, and monitoring components while preparing a flowchart. After preparing or obtaining the documentation in one year, the auditor may be able to limit documentation in subsequent years to updating the prior documentation to reflect changes in internal control.

2.126 Exhibits B-1, C-1, and D-2 in chapter 5 provide illustrations of three of many possible formats for documenting the auditor's understanding of internal control. Although these illustrations of memorandum and questionnaire formats present the auditor's understanding of internal control in one location of the working papers, this is not required.

2.127 In addition, the documentation illustrates for Young Fashions that an understanding of control activities was obtained while obtaining an understanding of the other four components (see exhibit C-1 in chapter 5). In contrast, the auditor for Vinco documented certain control activities in addition to gaining an understanding of the control activities while obtaining an understanding of the other four components (see exhibit D-2 in chapter 5).

2.128 Although the auditor should consider the major factors of internal control, the documentation does not need to address factors that are not significant to the control risk assessments or that are not applicable in the circumstances. The auditor only needs to document the aspects of internal control that he or she believes are relevant to the financial statement audit. For example, exhibit B-1 in chapter 5 does not address audit committees or internal auditors, because they do not exist in this owner-managed business.

2.129 Exhibits B-2 through B-4, C-2 and C-3, and D-3 and D-4 in chapter 5 provide examples of documentation of various aspects of the components at an account balance or class of transaction level for Ownco, Young Fashions, and Vinco. These examples include narratives, flowcharts, questionnaires, and combinations of each. However, the auditor does not need to use each form of documentation. In general, each of these forms of documentation addresses the following:

- The classes of transactions that are significant to the entity's financial statements
- How the transactions are initiated
- The source documents
- The accounting processing
- The computer files involved, if any, and how they are updated
- The documents, journals, ledgers, and reports generated by the financial reporting information system
- Control activities
- The financial reporting process used to prepare the financial statements

Chapter 3

Assessing Control Risk

Control Risk Assessment Concepts

3.01 Control risk is the risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by the entity's internal control. Assessing control risk is the process of evaluating the design and operating effectiveness of an entity's internal control in preventing or detecting material misstatements in financial statement assertions. The conclusion reached as a result of assessing control risk is referred to as the assessed level of control risk. The auditor's control risk assessment is based on relevant controls. An assessment of control risk would not ordinarily be made for individual components of internal control. The auditor considers the combined aspects of the control environment, risk assessment, control activities, information and communication, and monitoring components when assessing control risk.

3.02 The auditor may also make a combined assessment of inherent and control risks for significant assertions related to significant account balances and transaction classes. For example, the auditor might assess inherent and control risks as low for the completeness assertion related to accounts receivable because he or she has not identified significant risk factors related to that assertion and because the entity has strong overall controls over pervasive matters and effective controls at an activity level over the initial recording of transactions.

3.03 Control risk should be assessed for relevant assertions related to each significant account balance or transaction class. The auditor also may choose to assess control risk for specific objectives that relate to assertions. For example, it may be appropriate to divide the valuation assertion into two separate objectives—gross valuation and net realizable value—because of the different risk factors, controls, and planned substantive tests associated with these objectives. Separate control risk assessments are made for these two objectives for Ownco, Young Fashions, and Vinco (see exhibits B-5, C-4, and D-16, respectively). In other cases, an assessment may be made concurrently for several assertions relating to an account balance (for example, the auditor may jointly assess control risk for the existence, rights and obligations, and/or valuation assertions for an account balance).

3.04 The risk of misstatement for some assertions may not be significant for an account balance (for example, rights and obligations for investments in unconsolidated subsidiaries). Hence, the auditor does not need to assess every assertion for every account balance or transaction class. *For example, at Ownco, Inc., a control risk assessment is made concurrently for existence, rights and obligations, and gross valuation related to accounts receivable because all of these assertions (or objectives) are affected by the same controls (exhibit B-5).*

Assessing Control Risk at the Maximum

3.05 Control risk should be assessed at the maximum (the greatest risk that a material misstatement that could occur will not be prevented or detected on a timely basis by internal control) for some or all assertions if—

- Controls are unlikely to pertain to an assertion.
- Controls are unlikely to be effective.
- It would not be efficient for the auditor to obtain evidential matter to evaluate the effectiveness of controls.

The auditor should recognize that, although the level of assurance needed from substantive tests remains the same whether control risk is assessed at the maximum for efficiency reasons or because of ineffective controls, the fact that the auditor concludes that controls are ineffective may raise concerns about auditability and other questions. Assuming that the auditor is able to overcome auditability concerns, he or she may respond by heightening the degree of professional skepticism, assigning more experienced staff, and changing the nature, timing, and extent of substantive procedures.

Assessing Control Risk Below the Maximum

3.06 Assessing control risk below the maximum[1] involves—

- Identifying specific controls relevant to specific assertions that are likely to prevent or detect material misstatements in those assertions.
- Performing tests of controls to evaluate the effectiveness of such controls.

3.07 A lower assessed level of control risk is related to the effectiveness of internal control in preventing or detecting and correcting financial statement misstatements. The auditor should consider that controls can have either a pervasive effect on many assertions or a specific effect on an individual assertion, depending on the nature of the particular internal control component involved. For example, the conclusion that an entity's control environment is highly effective may influence the auditor's decision about the number of an entity's locations at which auditing procedures are to be performed or whether to perform certain auditing procedures for some account balances or transaction classes at an interim date. Additionally, the conclusion that an entity's monitoring component is highly effective may influence the auditor's decision about the number of customer accounts to confirm or whether to consider the work of the internal auditors. Either decision affects the way in which auditing procedures are applied to specific assertions, even though the auditor may not have specifically considered each individual assertion that is affected by such decisions.

3.08 Conversely, some control activities often have a specific effect on an individual assertion embodied in a particular account balance or transaction class. For example, the control activities that an entity has established to ensure that its personnel are properly counting and recording the annual physical inventory relate directly to the existence assertion for the inventory account balance.

3.09 Controls can be either directly or indirectly related to an assertion. The more direct the relationship, the more effective that control may be in reducing control risk for that assertion. With respect to auditing the existence

[1] Control risk may be assessed in quantitative terms, such as percentages, or in nonquantitative terms that range, for example, from a maximum to a minimum. For illustrative purposes in this Audit Guide, control risk is assessed using the terms *maximum, slightly below maximum, moderate,* and *low.*

of inventories, for example, an entity may have controls such as close monitoring by management of gross-profit percentages from month to month, a financial reporting information system that maintains perpetual inventory records, and the requirement that inventories be physically counted at the end of every quarter. Regular physical inventory count procedures that compare actual assets with the recorded accountability are more likely to detect and correct misstatements than management's monitoring of gross-profit percentages.

Performing Tests of Controls

3.10 Tests of controls are directed toward the effectiveness of the design or operation of a control. Tests of controls directed toward the effectiveness of the design of a control are concerned with whether that control is suitably designed to prevent or detect material misstatements in specific financial statement assertions. Tests to obtain such evidential matter ordinarily include procedures such as inquiries of appropriate entity personnel, inspection of documents and reports, and observation of the application of specific controls. For entities with complex internal control, the auditor should consider that the use of flowcharts, questionnaires, or decision tables might facilitate the application of these tests.

3.11 Tests of controls directed toward the effectiveness of the operation of a control are concerned with how the control was applied, the consistency with which it was applied during the audit period, and by whom it was applied. These tests ordinarily include evidence obtained from the following:

- Inquiries of appropriate entity personnel
- Inspection of documents and reports indicating performance of the control
- Observation of the application of the control
- Reperformance of the application of the control by the auditor

In some circumstances, a specific procedure may address the effectiveness of both design and operation. However, a combination of procedures may be necessary to evaluate the effectiveness of the design and operation of a control.

The Degree of Assurance Provided by Tests of Controls

3.12 When the auditor assesses control risk below the maximum, he or she should obtain evidential matter to support that assessed level. The evidential matter that is sufficient to support a specific assessed level of control risk is a matter of auditing judgment. Evidential matter varies substantially in the assurance it provides the auditor as he or she develops an assessed level of control risk. The auditor's decisions about the nature, timing, and extent of tests of controls, and the interrelationship of evidential matter, affect the degree of assurance the evidential matter provides. These matters are discussed in the following paragraphs.

The Nature of Tests of Controls

3.13 The nature of the particular controls that pertain to an assertion influences the type of evidential matter that is available to evaluate the effectiveness of the design or operation of those controls. For controls for which documentary evidence exists, the auditor may choose to examine the documents. For other controls (such as segregation of duties or some control activities performed by a computer), documentation may not exist. For these con-

trols, the auditor may choose to observe the control in operation or use computer-assisted audit techniques to reperform the control. Control activities that are pervasive to the entity or to the entire period (for example, segregation of duties) often can be tested only by inquiry and observation. As a result, such inquiries and observations provide sufficient evidential matter to support a conclusion about the operating effectiveness of the control activity.

3.14 Some tests of controls are more effective than others and provide more assurance about the effectiveness of the design and operation of internal control. Evidence from tests of controls obtained directly by the auditor, such as through observation, provides more assurance than evidential matter obtained indirectly or by inference, such as through inquiry. The auditor should consider, however, that the observed application of a control might not be performed in the same manner when the auditor is not present. Also, inquiry alone generally will not provide sufficient evidential matter to support a conclusion about the operating effectiveness of a specific control.

3.15 An auditor, for example, may decide to obtain evidence of the effectiveness of the design and operation of an entity's budgetary control methods. The auditor could make inquiries of management about what variations from budget are investigated and the controls for reporting the reasons for these variances. Based solely on this inquiry, the auditor will generally assess control risk at the maximum. The effectiveness of tests of controls may be increased by examining reports generated and asking more detailed questions (such as about whether personnel follow up on budgets or about the timeliness of the investigations or the nature of the reports). By combining these inquiries with examination of written explanations of variances, the auditor can determine the operating effectiveness of these controls. This documentation may provide direct evidence for assessing the effectiveness of these controls in preventing or detecting and correcting misstatements in the financial statements.

The Extent of Tests of Controls

3.16 More extensive tests of controls usually provide increased evidential matter about the consistency of application of a control and therefore may support a lower control risk assessment than that which would be supported by less extensive tests. For controls performed on a daily or other periodic basis, a single observation may not be sufficient, because it applies only to one point in time. Additional observations will increase the assurance provided by such evidence. The auditor performs more extensive tests by performing tests at more than one date, obtaining more documentary evidence, or, in the case of inquiry, by asking more than one person about the same control activities.

3.17 *For example, the tests of controls performed relevant to Ownco's accounts receivable (exhibit B-6) represent procedures performed while obtaining an understanding sufficient to support a primarily substantive audit approach. Observations were performed only during a one-week period when the auditor was in the field. Inquiries of the owner-manager and bookkeeper and examination of the documents supporting the owner-manager's sales authorization and follow up on accounts receivable were not extensive. As a result, the auditor assessed control risk for the valuation of receivables at their gross amount as slightly below the maximum.*

3.18 *However, the auditor might have planned a lower assessed level of control risk. To support this alternative plan, the auditor might make more ex-*

tensive inquiries of the owner-manager and bookkeeper and observe owner-manager controls while maintaining contact with the client during the year for other purposes. The auditor might also examine additional specific aged trial balances and selected transactions to ascertain how effective these controls are in ensuring the proper valuation of receivables at their gross amount. Depending on the extensiveness of such controls, and the degree to which they support a conclusion of effective design and operation of relevant controls, the auditor might be able to support a control risk assessment of moderate or low.

Timing of Tests of Controls

3.19 The timeliness of evidential matter concerns when it was obtained and the portion of the audit period to which it applies. In evaluating the degree of assurance that is provided by evidential matter, the auditor should consider that the evidential matter obtained by some tests of controls, such as observation, pertains only to the point in time at which the auditing procedure was applied. Consequently, such evidential matter may be insufficient to evaluate the effectiveness of the design or operation of controls for periods not subjected to such tests. In such circumstances, the auditor may decide to supplement these tests with other tests of controls that are capable of providing evidential matter about the entire audit period. The following paragraphs discuss the timeliness of evidential matter obtained in prior audits (paragraphs 3.20 through 3.27) and in interim periods (paragraphs 3.28 and 3.29).

Evidence from prior audits

3.20 Evidential matter about the effective design or operation of controls that was obtained in prior audits may be considered by the auditor in assessing control risk in the current audit. To provide a basis for a control risk assessment below the maximum, such evidential matter, together with evidential matter obtained during the current audit, should support the auditor's conclusion that the relevant controls are effectively designed and continue to operate effectively during the current audit period. To evaluate the use of such prior period evidential matter for the current audit, the auditor should consider—

- The significance of the assertion involved.
- The specific controls that were evaluated during the prior audits.
- The degree to which the effective design and operation of those controls were evaluated.
- The results of the tests of controls used to make those evaluations.
- The evidential matter about design or operation that may result from substantive tests performed in the current audit.

The auditor also should consider that the longer the time elapsed since the performance of tests of controls to obtain evidential matter about control risk, the less assurance those tests may provide.

3.21 When considering evidential matter from prior audits, the auditor should obtain evidential matter in the current period about whether changes have occurred in internal control, including its controls and personnel, subsequent to the prior audits, as well as the nature and extent of any such changes. For controls relevant to a control risk assessment below the maximum, the auditor should obtain evidential matter about changes in effectiveness of design (see paragraphs 3.23 and 3.24) and about changes in operating effectiveness (see paragraphs 3.25 through 3.27). When changes in internal control between audits are relatively minor, evidential matter obtained in prior

audits may provide assurance for the current audit. Conversely, changes may be so significant that evidential matter obtained in prior audits may provide limited or no assurance for the current audit.

3.22 Consideration of the factors discussed in the preceding paragraphs may support either increasing or decreasing the additional evidential matter about the effectiveness of design and operation to be obtained in the current period.

Evidence about changes in effectiveness of design

3.23 Assessing control risk below the maximum, when considering prior audit evidence, involves obtaining evidential matter to support a conclusion about the continued effectiveness of the design of relevant controls. To make such an assessment, evidence is needed in the current audit about (*a*) whether changes have occurred that are likely to affect the risk of material misstatement and (*b*) the effectiveness of design of changed controls that are relevant to the control risk assessment.

3.24 The auditor should evaluate changes in controls that are relevant to the control risk assessment. Procedures performed to determine whether changes have occurred may include inquiries of company personnel, observation of employees in the performance of their duties, or inspection of documents.[2] Determining the effectiveness of design of changed controls does not necessarily require that the auditor evaluate all changed controls, because (*a*) all changed controls may not be relevant to the control risk assessment and (*b*) the design of the controls may be affected by related controls that reinforce the effective design of such controls. For example, a number of changes may be made to programmed control activities, and these changes may be subject to the effect of control environment factors or computer general control activities (for example, approvals, testing). If, in this example, the auditor obtains evidence about the effectiveness of the related control environment factors and the effectiveness of computer general control activities related to the development of new programs or systems and changes to existing programs and systems, he or she may not need to perform additional procedures to evaluate the effective design of programmed control activities.

Evidence about changes in operating effectiveness

3.25 Assessing control risk below the maximum when prior audit evidence is considered also involves obtaining evidential matter to support a conclusion about continued operating effectiveness. To make such an assessment, evidence is needed in the current audit about (*a*) the continued operating effectiveness of relevant controls for which the design remained unchanged (see paragraph 3.26) and (*b*) the operating effectiveness of changed controls relevant to the control risk assessment (see paragraph 3.27).

3.26 The auditor should obtain evidence in the current audit about the continued operating effectiveness of relevant controls for which the design has remained unchanged. Decisions about the degree of assurance from prior audit evidence and about additional evidential matter needed in the current audit are affected by, among other considerations (see paragraph 3.20), the following:

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[2] Evidence about changes to relevant controls may be obtained while obtaining the required understanding of internal control. Regardless of the auditor's use of prior audit evidence, he or she should have an understanding of controls in place in the current period sufficient to plan the current year's audit (see paragraph 2.117).

- Adverse conditions that may affect whether the controls are likely to continue to operate effectively, such as the following:
  - — Changes in the nature of transactions being processed or increases in volume
  - — Changes in management attitudes or reduction of supervision
  - — High turnover of employees
  - — Increases in responsibilities or workloads of employees
- The effect of related controls that reinforce the continued effective operation of the controls, such as the following:
  - — Documented procedures manuals
  - — Close management supervision, including frequent communication and responsibility reporting
  - — Periodic reviews by internal auditors
  - — Computer general control activities

If the auditor has determined that the adverse conditions previously noted are not present, then the degree of assurance from prior audit evidence is higher and the extent of additional evidence needed in the current year is less than that needed when such conditions are present. On the other hand, if any such adverse conditions are present, the degree of assurance from prior audit evidence is lower, and the extent of additional evidence needed in the current audit is greater.

3.27 The auditor should obtain evidence in the current audit about the operating effectiveness of changed controls that are relevant to the control risk assessment. If there are significant changes in design, prior evidence provides little, if any, assurance in the current audit.

Evidence from interim periods

3.28 Auditors often perform tests of controls during interim work. When the auditor obtains evidential matter about the design or operation of controls during an interim period, he or she should determine what additional evidence needs to be obtained for the remaining period. In making that determination, the auditor should consider the following:

- The significance of the assertion involved
- The specific controls that were evaluated during the interim period
- The degree to which the effective design and operation of those controls were evaluated
- The results of the tests of controls used to make that evaluation
- The length of the remaining period
- The evidential matter about design or operation that may result from the substantive tests performed in the remaining period

3.29 The auditor should obtain evidential matter about the nature and extent of any significant changes in internal control, including its controls and personnel, that occur subsequent to the interim period. For example, after considering the factors discussed in paragraphs 3.26 through 3.28, the auditor might make inquiries about changes in controls, observe employees performing their duties during the performance of other audit procedures, or examine evidence supporting the continued effectiveness of such controls. If the audit procedures indicate that significant changes have occurred in relevant controls or personnel, the auditor should revise his or her understanding of internal con-

trol and consider testing the changed controls. Alternatively, the auditor may consider performing substantive analytical procedures or tests of details covering the remaining period.

The Interrelationships of Evidential Matter

3.30 Generally, when various types of evidential matter support the same conclusion about the effectiveness of the design or operation of a control, the degree of assurance provided about the auditor's conclusions regarding the assessed level of control risk increases. Conversely, if various types of evidential matter lead to different conclusions about the effectiveness of the design or operation of a control, the assurance provided decreases.

3.31 For example, an auditor may test computer general control activities over access to programs and data. In the process, the auditor may perform the following tests.

- Observe physical access.
- Determine the existence of controls over dial-in lines and terminals.
- Make inquiries of the data processing manager, programming manager, and other data processing employees.
- Examine logs and reports generated by the general librarian and security software.
- Attempt, with client authorization, an unauthorized access to programs and data.

If the results of these tests of controls are favorable, the auditor has obtained increased assurance about operating effectiveness. If, in contrast, inquiries of employees or inspection of documents provide conflicting evidence about the design and operation of controls, the assurance from these tests decreases, and the auditor should resolve the conflicting information or increase the assessed level of control risk.

3.32 The auditor should consider the combined effect of various types of evidential matter relating to the same assertion in evaluating the degree of assurance that evidential matter provides. In some circumstances, a single type of evidential matter may not be sufficient to evaluate the effective design or operation of a control. For example, an auditor may observe that programmers are not authorized to operate the computer. Because an observation is pertinent only at the point in time at which it is made, the auditor may supplement the observation with inquiries about the frequency and circumstances under which programmers may have access to the computer and may inspect documentation of past instances in which programmers attempted to operate the computer to determine how such attempts were prevented or detected.

3.33 When evaluating the degree of assurance provided by evidential matter, the auditor should consider the interrelationships among an entity's control environment, risk assessment, control activities, information and communication, and monitoring components. Although an individual internal control component may affect the nature, timing, or extent of substantive tests for a specific financial statement assertion, the auditor should consider the evidential matter about an individual component in relation to the evidential matter about the other components in assessing control risk for a specific assertion. An effective control environment interacts with the other four components to help provide reasonable assurance that specific entity objectives are achieved. In contrast, an ineffective control environment may negate other aspects of the other four components and cause the auditor to assess control

risk for some or all assertions higher than he or she otherwise would. For example, the auditor may obtain evidence that an owner-manager has established effective controls for developing and modifying the financial reporting information system and control activities. The auditor also may determine that an effective perpetual inventory system has been designed and placed in operation. The auditor may be able to reduce the number of observations of control activities to obtain the same assurance about operating effectiveness that would be needed in other circumstances with a less effective control environment. Conversely, if various types of evidential matter lead to different conclusions about the design or operation of a control, the assurance provided decreases. For example, based on evidential matter that the control environment is effective, the auditor may reduce the number of locations at which auditing procedures will be performed. If, however, when evaluating specific control activities, the auditor obtains evidential matter that such procedures are ineffective, the auditor may reevaluate his or her conclusions about the control environment and, among other things, decide to perform auditing procedures at additional locations. Similarly, evidential matter indicating that the control environment is ineffective may adversely affect an otherwise effective activity-level control for a particular assertion. For example, a control environment that is likely to permit unauthorized changes in a computer program may reduce the assurance provided by evidential matter obtained from evaluating the effectiveness of the program at a particular point in time. In such circumstances, the auditor may decide to obtain additional evidential matter about the design and operation of that program during the audit period. For example, the auditor might obtain and control a copy of the program and use computer-assisted audit techniques to compare that copy with the program that the entity uses to process data.

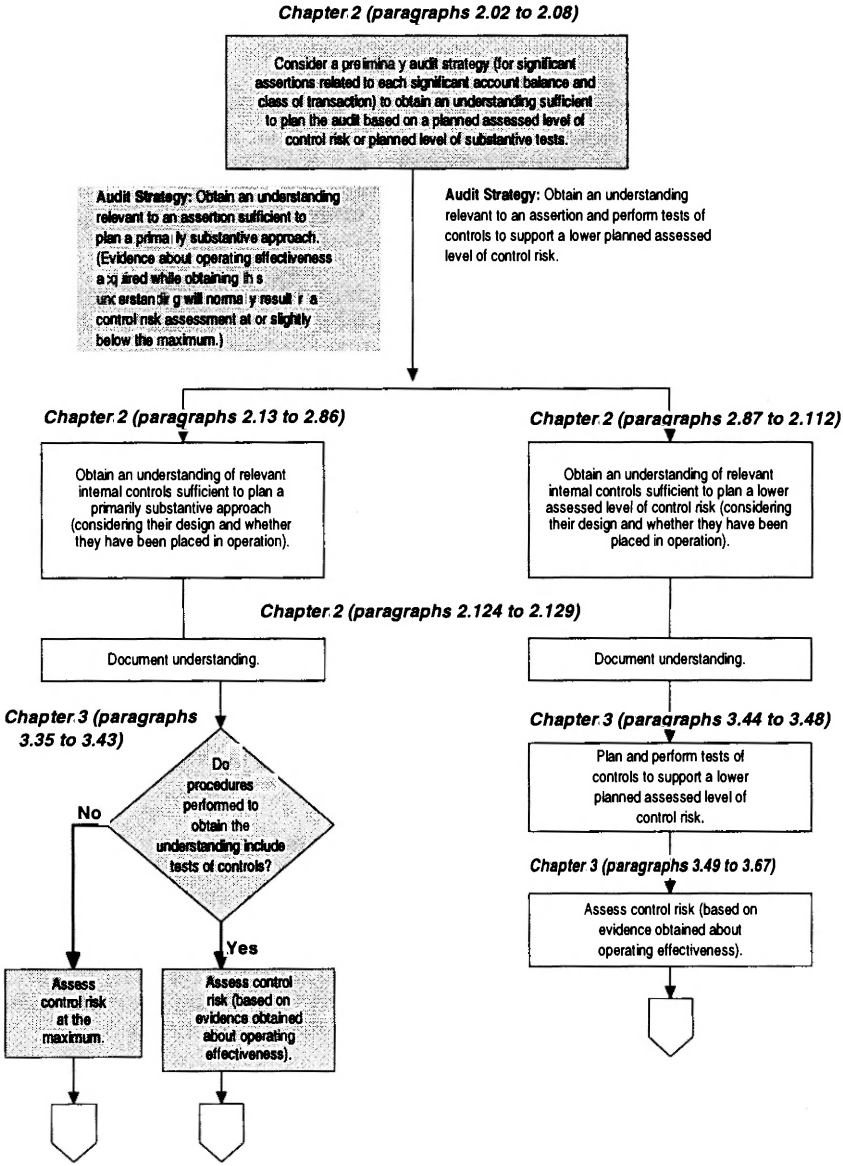
3.34 Auditing financial statements is a cumulative process. As the auditor assesses control risk, the information obtained may cause him or her to modify the nature, timing, or extent of the other planned tests of controls. Paragraph 4.02 provides additional guidance about the relationship of the evidence obtained from tests of controls to the auditor's reconsideration of the planned audit strategy.

Assessing Control Risk Based on Procedures to Obtain the Understanding Sufficient to Plan a Primarily Substantive Approach

3.35 Figure 3-1 presents the flowchart introduced in chapter 1 and highlights the matters to be covered in this section. Paragraphs 3.37 through 3.43 address situations in which the auditor's preliminary audit strategy is to assess control risk based only on the procedures performed to obtain the understanding sufficient to plan a primarily substantive approach that may also serve as tests of controls. For some assertions, this may result in a control risk assessment at the maximum or, for other assertions, below the maximum. These paragraphs provide guidance for making these assessments.

Figure 3-1

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class Transaction



3.36 The procedures discussed in paragraph 3.11 may also provide evidence about the effective design and operation of internal control. The following discussion contains examples, in the context of Ownco and Young Fashions, of how these procedures also may serve as tests of controls. (See the control risk assessments in exhibits B-5, B-6, and C-4, respectively.)

Assessing Control Risk at the Maximum

3.37 For some assertions, an auditor may decide to assess control risk at the maximum because controls do not pertain to an assertion or are unlikely to be effective. *The auditor for Ownco, Inc., determined that the company had not designed effective controls related to the collectibility of receivables (exhibit B-5). At Young Fashions, Inc., concerns about the control environment (particularly management's philosophy and operating style) led the auditor to believe that any controls related to the estimation of an allowance for doubtful accounts would likely be ineffective (exhibit C-1). As a result, control risk for the net realizable value of receivables was assessed at the maximum in both audits.* For other assertions, the auditor may assess control risk at the maximum because it may be more effective or efficient to do so. *For example, at Ownco, Inc., the auditor decided that it would be more efficient to assess control risk at the maximum for all assertions related to account balances such as cash, fixed assets, and notes payable and to design appropriate substantive tests (exhibit B-5).*

Assessing Control Risk Below the Maximum

3.38 Even though some of the procedures performed to obtain the understanding may not have been specifically planned as tests of controls, they may provide evidential matter about the effectiveness of both the design and operation of the controls relevant to certain assertions and, consequently, serve as tests of controls to support a control risk assessment below the maximum.

3.39 Caution, however, is necessary. Procedures performed in obtaining the understanding cannot support an assessment of control risk below the maximum unless they provide evidence to evaluate the effectiveness of design and operation of controls. Accordingly, the auditor should consider that—

- Evidence from prior audits may be affected by subsequent changes in internal control.
- Evidence from inquiries depends on the extent of the inquiries, and inquiry alone generally will not provide sufficient evidential matter to support a conclusion about the effectiveness of a specific control.
- Observation of employees in the performance of their duties may corroborate evidence obtained from other sources, but pertains only to the point in time at which the observation was made.
- Evidence from inspection of documents depends on the extensiveness of inspections made.

In determining whether the evidential matter obtained is sufficient to support an assessed level of control risk below the maximum, the auditor should consider the assurance provided by that evidential matter. The following paragraphs provide several examples of how the auditor might assess control risk based on procedures performed to obtain an understanding of internal control that is sufficient to plan the audit.

3.40 *At Ownco, Inc., the auditor determined that the owner-manager demonstrated a conservative attitude toward business risks through prior ex-*

perience with the entity, inquiry of the owner-manager, and inspection of documentation of business decisions made during the year (exhibit B-6). Through inquiry and observation, and by walking selected transactions through the system, [3] *the auditor also determined that significant changes had not been made in the financial reporting information system, and that access to the computer system was limited to the owner-manager and two other office employees. Based on these procedures, the auditor assessed control risk at slightly below the maximum for the existence assertion related to accounts receivable.*

3.41 *For the completeness assertion, the auditor also made inquiries about the procedures performed by the bookkeeper to follow up on documents in the unmatched documents file. Documents in this file were inspected, and no unrecorded transactions were discovered. The auditor also made inquiries of the owner-manager about the timeliness with which sales are recorded and the extensiveness of review of weekly sales and shipping reports. Inquiries were also made of the bookkeeper about the extent of owner-manager review of sales. Because no problems were noted while examining documentary evidence, and based on the extensiveness of owner-manager review, the auditor assessed control risk for the completeness assertion for accounts receivable as moderate.*

3.42 *For the gross valuation objective of the valuation assertion for accounts receivable, the auditor determined that, as part of the financial reporting information system, the bookkeeper compared invoice amounts with supporting documentation. In addition, the owner-manager reviewed weekly sales and shipping reports. However, the auditor chose not to perform additional procedures (beyond those performed to obtain the understanding) to test the effectiveness of these controls. Therefore, control risk for this objective was assessed at slightly below the maximum.*

3.43 *At Young Fashions, Inc., the auditor assessed control risk for the objective of gross valuation of receivables and sales at slightly below the maximum (exhibit C-4). The auditor made inquiries of the sales manager and employees in the sales office about the effectiveness of manual follow-up of a "was-is" computer report of changes to the master-price file. Inquiries also addressed the employees' knowledge of the completeness and accuracy of the computer report. Supporting documentation was examined for selected transactions, and no exceptions were noted. However, based on past experience and on inquiries of entity personnel, the auditor was concerned about the accuracy of quantity information used to value sales and receivables, particularly at the Texas location, because of the high turnover of personnel. As a result, the auditor assessed control risk at slightly below maximum for the objective of gross valuation of receivables and sales at all operations except those in Texas, for which the auditor assessed control risk at the maximum because he believed that controls at that location were likely to be ineffective.*

Tests of Controls to Support a Lower Planned Assessed Level of Control Risk

3.44 For certain assertions, the auditor may seek to assess control risk at a lower level than that at which it would be assessed on the basis of procedures

[3] The extent of tests of controls that support a control risk assessment of slightly below the maximum, moderate, or low is a matter of professional judgment. This Audit Guide often refers to selected tests, without specifying an explicit extent of tests, to allow for such judgment.

performed to obtain the understanding sufficient to plan a primarily substantive approach that could serve as tests of controls. Therefore, the auditor may develop a preliminary audit strategy involving sufficient tests of controls to support a lower planned assessed level of control risk. The strategy discussed in this section differs from that discussed in paragraphs 3.35 through 3.43 primarily in that—

- The auditor may obtain an understanding of additional controls or of controls in greater depth than when planning the audit.
- The auditor performs tests of controls to support a lower assessed level of control risk.

Understanding internal control in greater depth was explained in paragraphs 2.87 through 2.112. Assessing control risk at a lower level depends on the assurance provided by tests of controls about the effectiveness of the design and operation of internal control. The auditor may perform such tests of controls either simultaneously with or following procedures performed to obtain an understanding of relevant controls. The auditor may also plan to perform tests of controls concurrently with substantive tests (such as dual-purpose tests), which may provide evidence to support a planned assessed level of control risk below maximum.

3.45 The planning and performance of tests of controls to support a lower planned assessed level of control risk is depicted in the right side of the flowchart in figure 3-2. Figure 3-2 highlights the sections covered in the remainder of this chapter, which discusses tests of controls to support a lower assessed level of control risk.

Audit Efficiency Considerations Regarding a Lower Planned Assessed Level of Control Risk

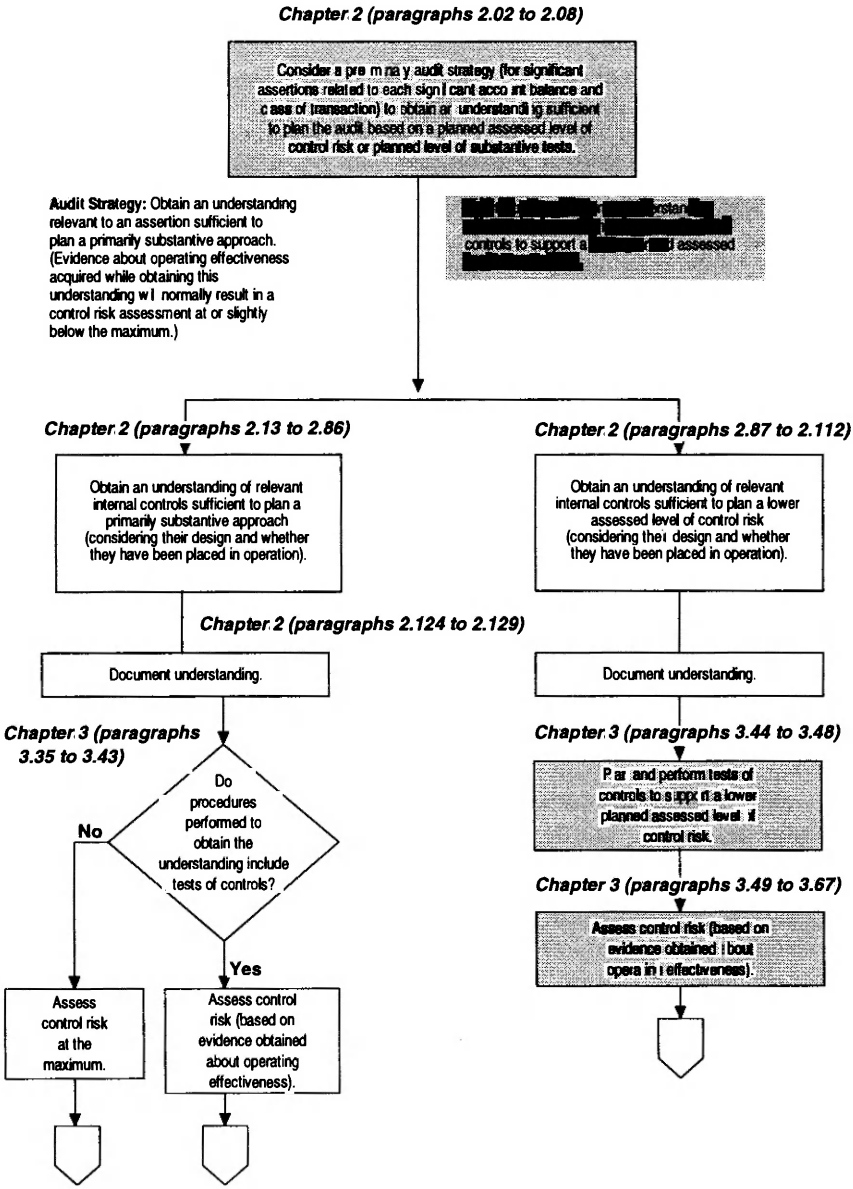
3.46 The auditor may plan a lower assessed level of control risk for audit efficiency reasons. In considering efficiency, the auditor recognizes that obtaining evidence about the design and operating effectiveness of controls supports a lower planned assessed level of control risk, which would result in less audit effort from substantive tests of that assertion. For example, an auditor may choose to understand and test computer application and general control activities rather than substantively test certain reports used in the audit. The auditor weighs the increase in audit effort associated with the increased understanding and planned tests of controls against the resulting decrease in audit effort associated with a higher level of detection risk.

3.47 *For Ownco, Inc., and Young Fashions, Inc., the auditors decided that they could perform more efficient audits following a primarily substantive approach. Vinco, Inc., is a larger company with more complex operations and systems. The auditor decided that the audit would be more efficient if he planned a lower assessed level of control risk for certain assertions. The auditor supported this strategy by understanding additional controls (discussed in paragraphs 2.87 through 2.112) and by planning and performing tests of controls (discussed in this chapter). In addition, because additional personnel were hired and trained at the Texas location, an alternative audit strategy is presented for Young Fashions, Inc. In this new scenario, the auditor plans and performs tests of controls to support a lower assessed level of control risk.* This discussion provides a contrast with the approach for the Young Fashions audit presented earlier.

3.48 Obtaining additional evidential matter that supports a lower assessed level of control risk should result in a modification in the nature, timing,

Figure 3-2

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



or extent of substantive audit procedures. The auditor may choose to modify the audit procedures in one or more of the following ways:

- Changing the nature of substantive tests (for example, by using tests directed toward parties or documentation within the entity instead of toward independent parties outside the entity)
- Changing the timing of substantive tests (for example, by performing them at an interim date rather than at year end[4])
- Changing the extent of substantive tests (for example, by using a smaller sample size)

Supporting a Lower Assessed Level of Control Risk

3.49 The following paragraphs provide examples of how the auditor might plan and perform tests of controls to support a lower assessed level of control risk.

Vinco, Inc.

3.50 *The auditor for Vinco, Inc., planned to support a low control risk assessment for the objective of proper valuation of accounts receivable at the gross amount by performing tests of controls to obtain evidence about the effective design and operation of internal control. Because of the nature of the controls tested, many of these tests of controls may also be relevant to other assertions.*

Control environment

3.51 *The auditor performed tests of controls to obtain evidence about various control environment factors to assess management's attitudes, awareness, and actions concerning the control environment. For example, the auditor considered previous experience with the entity and performed the following procedures to assess the control environment with respect to data processing:*

- *Observation of management and employees in the performance of their day-to-day activities*
- *Inquiry of the vice president of administration, the data processing manager, internal auditors, and others within data processing regarding how management established and monitored controls for developing and modifying the financial reporting information system and control activities*

Examples of the auditor's documentation of these tests of the control environment are found in exhibit D-2. The auditor's assurance that computer general and application controls are operating effectively can be increased by obtaining evidence that the data processing aspects of the control environment are properly designed and operating effectively.

Risk assessment

3.52 *The auditor performed tests of controls to obtain evidence about the company's risk assessment process. For example, the auditor considered previous experience with the entity, reviewed the budget process, and attended a monthly risk assessment meeting.*

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[4] See footnote 7 in chapter 2.

Control activities

3.53 *In planning a low assessed level of control risk, Vinco's auditor planned to assess the operating effectiveness of certain programmed control activities related to the gross valuation of receivables and sales. For example, Vinco has programmed control activities to check the quantities used to prepare sales invoices. As noted in exhibit D-3, the billing program compares the Daily Shipments File with the Daily Priced-Out Sales Order File and produces a report that lists differences between quantities actually shipped and quantities scheduled for shipment. Differences are investigated by the accounting clerk, and corrections are entered on the terminal. The effectiveness of the control activity depends on the effectiveness of both the programmed control and the manual follow-up activities.*

3.54 *Vinco's auditor determined that the most efficient way to ensure that relevant programmed control activities functioned consistently throughout the period was to test the operating effectiveness of computer general control activities. As discussed in paragraphs 2.97 through 2.104, the auditor planned to obtain evidence of the effective operation of computer general control activities and manual follow-up activities to support a low assessed level of control risk. In addition, the auditor planned to use a combination of evidence obtained in a prior year and tests in the current year of general computer control activities over the design of, or over changes to, programmed application control activities to ensure that applications were operating effectively. To achieve this low assessed level of control risk, the auditor planned tests of computer general control activities to obtain evidence that—*

- *Programmed control activities were properly designed and tested in development.*
- *Changes to programmed control activities were properly made.*
- *Access controls were adequate to reduce the risk of unauthorized changes to the programmed control activities.*

3.55 *The tests of Vinco's general control activities are illustrated in exhibit D-5, workpapers G-30 and G-40. During the year, Vinco developed no new systems. The auditor's tests of program changes included examination of the following:*

- *Reports used to evaluate adherence to quality assurance standards*
- *Program-change logs generated by the general utility librarian package (GULP)*
- *Written approvals by appropriate department managers and the data processing manager*
- *Program maintenance reports and logs of the program development manager*
- *Final revised program documentation*
- *Acceptance of test results*
- *GULP transfer logs showing when programs were transferred from and to the production library*
- *GULP compile logs showing when the programs were compiled into object code*

Such tests were designed to obtain evidence about the effective design and operation of general computer control activities as they were applied to programmed applications. In the process, the auditor obtained evidence about the

approval, design, and testing of related changes in the revenue and payable / disbursements systems. In addition, inquiries were made of the following:

- *User department managers regarding their involvement in the approval and testing process*
- *The data processing manager regarding program changes and adherence to established programming standards*

Tests of computer general control activities pertaining to access to programs and files included obtaining an understanding of the vendor-supplied librarian and access security packages (GULP and GASP), observing physical access to computer facilities, making inquiries of the security officer and other computer personnel regarding security, and inspecting GULP librarian administration reports and user attribute reports, set attribute reports, and reports showing user privileges. In addition, the auditor attempted to access computer programs with improper passwords and reviewed reports recording attempts to access the system by unauthorized users. These tests supported an assessment that general controls were operating effectively.

3.56 *In assessing the effectiveness of the specific programmed control activity, the auditor considered evidence obtained in a prior year about the effectiveness of the design of the programmed control that compared quantities shipped and billed. In addition, the auditor obtained assurance in the current period that there was a low risk that the program was changed without adequate testing before implementation.*

3.57 *To assess control risk for this aspect of the valuation assertion as low, the auditor also tested the effectiveness of manual follow-up activities. These tests of controls included the following:*

- *Inquiries of the accounting clerk about the frequency and extent of differences between quantities shipped and quantities scheduled for shipment, and about procedures for entering the correct quantities at the terminal*
- *Inquiries of shipping personnel about the frequency of such differences*
- *Inquiries of accounts receivable personnel about the frequency of customer complaints about incorrect billings during the period and the causes of such misstatements*
- *Examination of customer correspondence*
- *Observation of the accounting clerk performing follow-up activities at several times during the audit*
- *Examination of selected computer reports listing differences for follow-up, and of related sales invoices and shipping documents to determine that quantities billed matched the quantities actually shipped*
- *Review of the budget process and verification of significant variances as documented in exhibits D-3 and D-5, workpaper C-30.*

No deviations from the prescribed procedures were found. These tests of the computer general control activities and manual follow-up activities were considered sufficient to assess control risk as low for this aspect of the valuation assertion.

3.58 *User control activities to check the completeness and accuracy of changes to the master-price file are not illustrated in this example. However, Vinco's auditor considered the above tests of general control activities to be sufficient for primary attention to be focused on the manual follow-up activities associated with changes to the master-price file.*

3.59 *Vinco relies on the order entry and billing programs to produce accurate invoice calculations and does not recheck amounts. Vinco does, however, follow up on customer correspondence and the reasons for complaints about improper billings. To obtain evidential matter to support a low control risk assessment for the objective of proper valuation of gross receivables, Vinco's auditor performed tests of controls that included the following:*

- *Consideration of prior knowledge that the program produced accurate invoices*
- *Tests of general control activities to ensure that there was a low risk of programs being changed without adequate testing*
- *Inquiries of personnel who follow up on customer correspondence to determine the extent of and reason for billing errors*
- *Examination of customer correspondence*

Information and communication

3.60 *The auditor's tests of the information and communication component comprised procedures performed by the auditor while he or she obtained the understanding of information and communication. These tests included—*

- *Questioning employees with responsibility for sales, shipping, accounting, and computer processing.*
- *Examining source documents and computer output at various stages in the accounting process.*
- *Observing employees performing accounting functions at various locations.*

In addition, the auditor confirmed the assessment about the effective operation of the information and communication component as substantive tests were performed. The auditor's understanding and tests of the information and communication component are documented in exhibits D-2, D-3, D-4, and D-5, workpaper R-100, along with tests of specific control activities.

Monitoring

3.61 *The auditor performed tests of controls to obtain evidence about the monitoring component. For example, the auditor considered previous experience; made inquiries and observations to determine whether external recommendations from customers and the results of separate evaluations were acted on; and assessed the competence and objectivity of the internal auditors (in this audit strategy, the effectiveness of data processing aspects of the monitoring component would also be confirmed while testing specific computer control activities). Examples of the auditors' documentation of these tests of the monitoring component are found in exhibits D-2 and D-5, workpaper C-40.*

Young Fashions, Inc.

3.62 *Paragraphs 2.113 through 2.115 provide an example in which the auditor for Young Fashions modified the audit strategy to support a change in the timing of substantive tests based on a lower assessed level of control risk. (The auditor was able to plan a lower control risk assessment for certain assertions because the client corrected problems caused by the lack of trained personnel at the Texas location. In addition, the client established policies for developing and making changes to the sales / accounts receivable system.) Many programmed control activities are involved in processing sales transactions and,*

as a result, the auditor planned an audit strategy similar to that explained above for Vinco to determine whether such transactions were valid and properly valued. This strategy involved understanding and testing the control environment, risk assessment, information and communication, monitoring, computer general control activities, and related manual follow-up activities.

3.63 *In performing tests of the control environment, the auditor determined that, because of the close supervision by the data processing manager, management control over data processing was appropriate for the size of the company. The data processing manager performed an assessment of sensitive programs and data files to determine whether access restrictions were appropriate. In addition, data processing output was reviewed by user departments and by the chief financial officer for purposes of controlling operations.*

3.64 *Under this revised strategy, the tests of the financial reporting information system did not change substantially from those performed to obtain the understanding of this component.*

3.65 *The major changes in audit strategy involved tests of control activities. These control activities are most directly related to specific assertions and, as a result, obtaining evidence of the effective design and operation of these controls allows for a significant reduction in the control risk assessment. Young Fashions' accounting system is highly computerized, and most control activities involve programmed controls and manual follow-up.*

3.66 *The auditor determined that the most efficient way to obtain assurance about the design and consistent operation of programmed control activities was by testing the computer general control activities. In this case, tests of computer general control activities might be similar to those described previously in connection with the Vinco audit.*

3.67 *Tests of the effectiveness of Young Fashions' manual follow-up activities were essentially the same as those discussed in paragraph 3.57.*

Chapter 4

Reevaluating the Preliminary Audit Strategy, Documenting the Control Risk Assessment, and Designing Substantive Audit Procedures

4.01 This chapter provides guidance to help the auditor in the following:

- Reevaluating the preliminary audit strategy, including the consideration of—
  - — A further reduction in the assessed level of control risk
  - — Whether the assessed level of control risk supports the planned level of substantive tests
- Documenting the control risk assessment
- Designing substantive tests

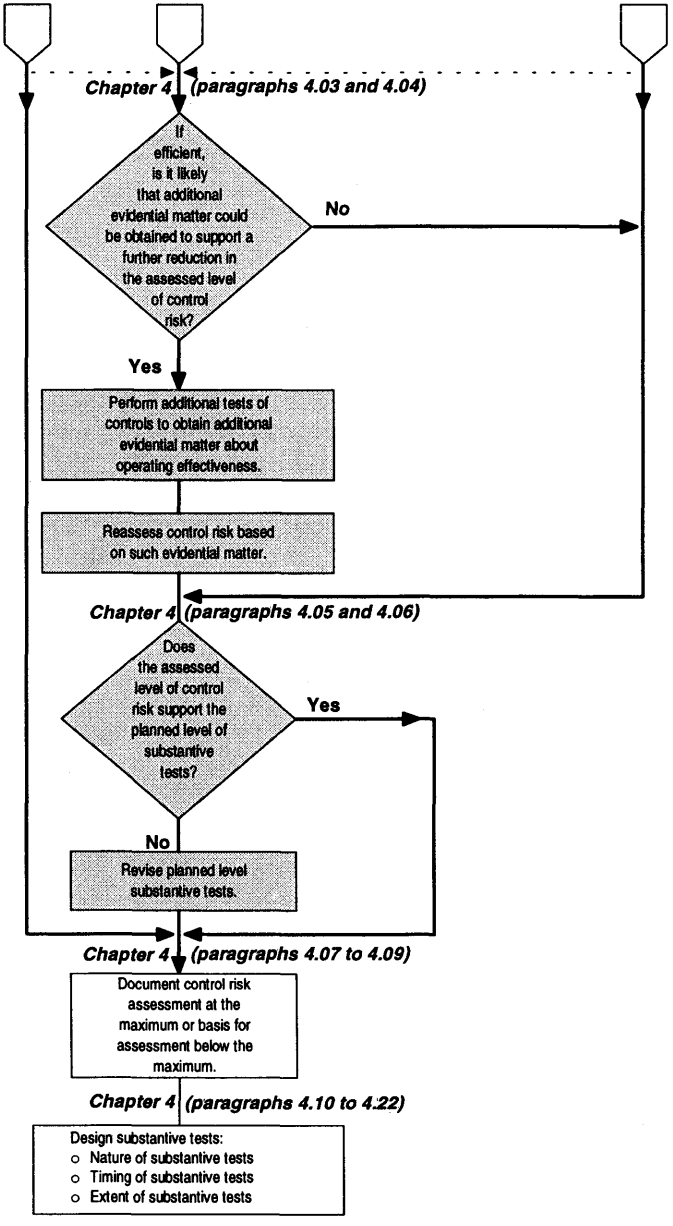
Reevaluating the Preliminary Audit Strategy

4.02 Figure 4-1 presents the flowchart introduced in chapter 1 and highlights the material covered in this section. After obtaining an understanding of internal control and assessing control risk, the auditor may acquire evidence that causes him or her to reassess the preliminary audit strategy for an assertion. For example, the auditor may have planned to perform tests of controls concurrently with obtaining an understanding of internal control. In this process, the auditor may have obtained unanticipated information about changes in the design of internal control or about its operating effectiveness. Depending on the nature of the changes in controls or personnel, the auditor may consider either of the following:

- Reducing further the assessed level of control risk
- Revising planned substantive tests, because the results of tests of controls do not support the planned level of substantive tests

Figure 4-1

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



A Further Reduction in the Assessed Level of Control Risk

4.03 After obtaining the understanding of internal control and assessing control risk, the auditor may desire to seek a further reduction in the assessed level of control risk. In such cases, the auditor considers whether additional evidential matter sufficient to support a further reduction is likely to be available, and whether it would be efficient to perform tests of controls to obtain that evidential matter. The results of the procedures performed to obtain the understanding of internal control, as well as pertinent information from other sources, help the auditor to evaluate those two factors.

4.04 *For example, the auditor of Young Fashions assessed control risk at slightly below the maximum for the existence of accounts receivable based on the procedures to obtain the understanding sufficient to plan a primarily substantive approach that served as tests of controls. In a subsequent year, the auditor changed audit strategy by planning a lower assessed level of control risk (see paragraphs 3.62 through 3.67). The auditor found that additional personnel were hired and trained to correct the prior personnel problems that had been experienced in Texas. In addition, the auditor discovered that the company had upgraded its financial reporting information system and that management had established and monitored formal policies for developing and modifying the system. Upon obtaining this understanding, the auditor determined that additional evidential matter about the operating effectiveness of relevant controls would likely be available, and that it would be efficient to plan a lower control risk assessment.*

Does the Assessed Level of Control Risk Support the Planned Level of Substantive Tests?

4.05 When performing tests of controls, the auditor might find exceptions to prescribed controls. The auditor should consider both the rate of deviations detected by pertinent procedures and the qualitative aspects of the deviations. If the auditor concludes that the results of tests of controls do not support the planned assessed level of control risk for an assertion, he or she should reevaluate the nature, timing, and extent of the planned substantive procedures based on a revised consideration of the assessed level of control risk for the relevant financial statement assertions.

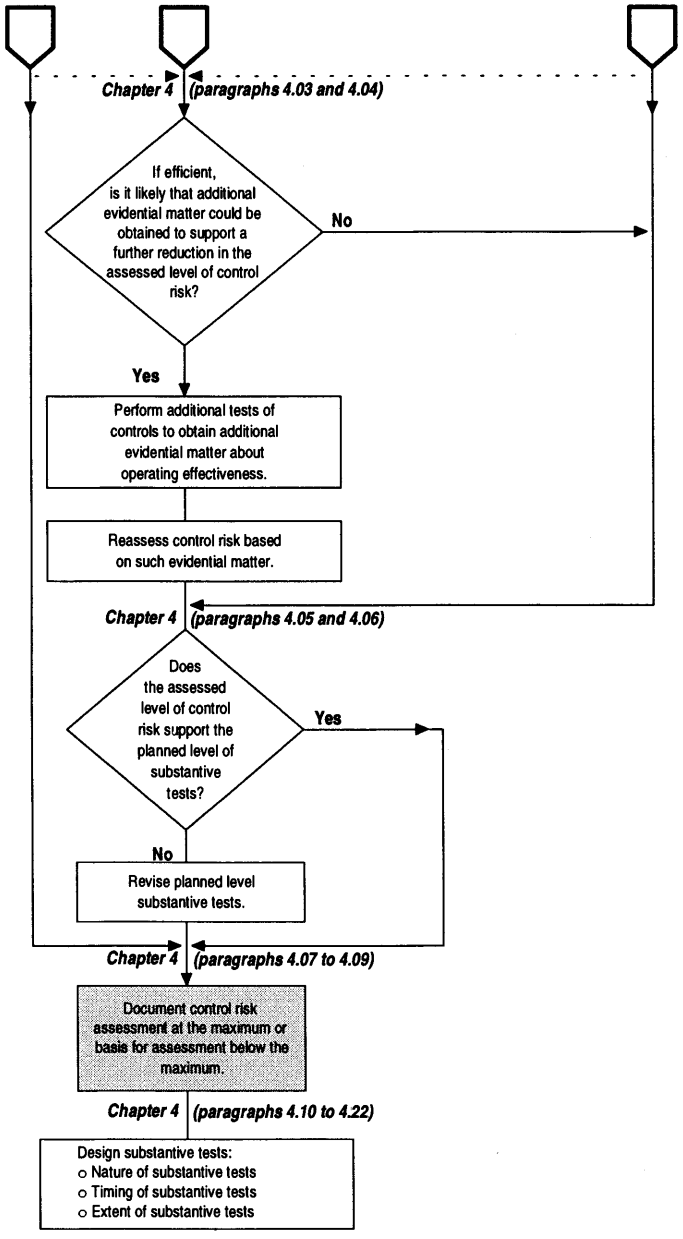
4.06 *For example, Vinco's auditor planned to assess control risk as low for the existence and rights and obligations assertions related to receivables based primarily on the strong controls implemented by the company over changes to the accounts receivable customer master files (see exhibit D-6). If the results of tests of controls had indicated that these controls were not effective in preventing or detecting material misstatements in these assertions, the auditor would have revised the control risk assessment and performed more effective substantive procedures, which might have included confirming a larger sample of customer balances, inspecting documentation supporting activity from the interim confirmation date to year end rather than performing analytical procedures of that activity, or mailing confirmations as of year end rather than as of an interim date.*

Documenting the Control Risk Assessment

4.07 Figure 4-2 highlights the material from the flowchart introduced in chapter 1 that is discussed in this section. Control risk should be assessed for significant assertions embodied in the financial statements. A control may relate to one or more assertions.

Figure 4-2

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



4.08 The auditor's responsibility for documenting his or her conclusions about the assessed level of control risk is summarized as follows.

	Assess Control Risk at the Maximum	**Assess Control Risk Below the Maximum**
Document the Assessed Level of Control Risk	**Yes** The auditor should document the assessment of control risk at the maximum.	**No** The auditor need not document the level at which control risk is assessed below the maximum.
Document the Basis for the Control Risk Assessment	**No** The auditor need not document the basis for assessing control risk at the maximum.	**Yes** The auditor should document the basis for assessing control risk below the maximum.

For account balances or assertions for which control risk is assessed at the maximum, the auditor need only document that it is at the maximum. The auditor need not document the basis for this assessment.

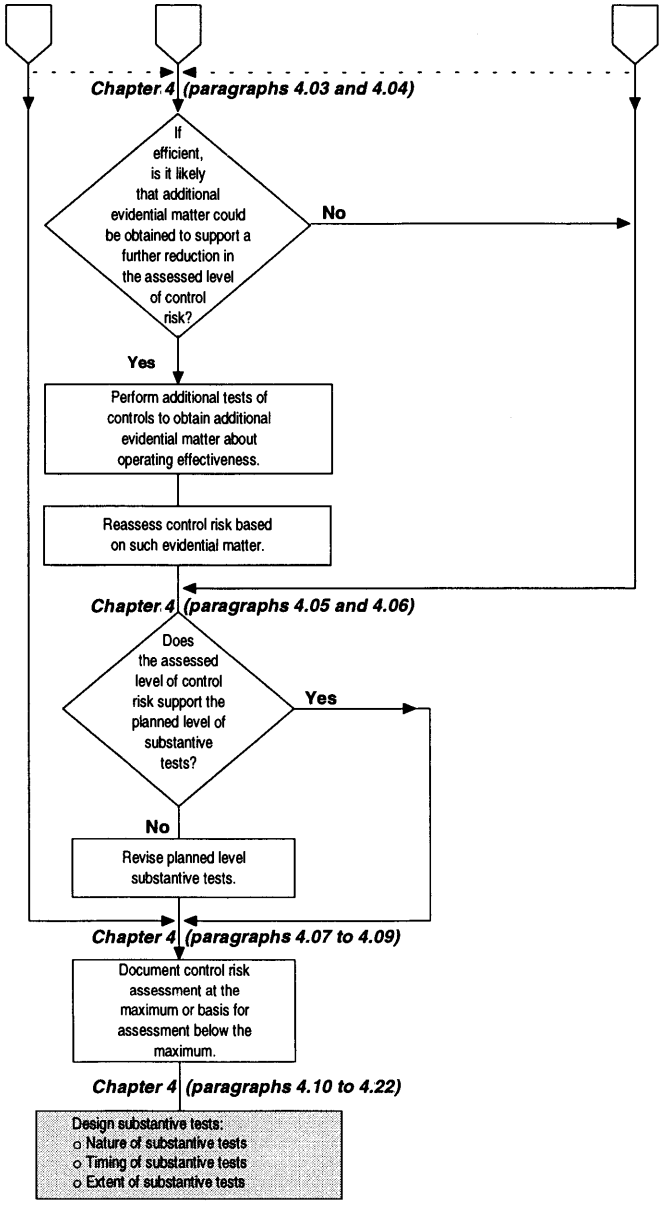
4.09 For account balances or assertions for which control risk is assessed below the maximum, the auditor should document the basis for the assessment. The documentation of the basis for the assessment should be evidenced by the tests of controls and their results. The assessed level of control risk might be expressed quantitatively (for example, as a percentage) or qualitatively (for example, as slightly below the maximum, as moderate, or as low). However, SAS No. 55, *Consideration of Internal Control in a Financial Statement Audit* (AICPA, *Professional Standards*, vol. 1, AU sec. 319), reprinted herein as appendix C, does not require the auditor to document the specific level below the maximum.

Designing Substantive Tests

4.10 Figure 4-3 presents the flowchart introduced in chapter 1 and highlights the material covered in this section. After considering the level to which the auditor seeks to restrict the risk of a material misstatement in the financial statements and the assessed levels of inherent risk and control risk, the auditor performs substantive tests to restrict detection risk to an acceptable level. As the assessed level of control risk decreases, the acceptable level of detection risk increases. Accordingly, the auditor may alter the nature, timing, and extent of substantive tests performed.

Figure 4-3

Flowchart of the Auditor's Consideration of Internal Control and Its Relation to Substantive Tests for Significant Assertions Related to Each Significant Account Balance and Class of Transaction



The Auditor's Consideration of Control Risk at the Account Balance and Transaction Class Level

4.11 After considering the assessments of inherent risk and control risk, decisions about the nature, timing, and extent of substantive tests should be made in light of the appropriate level of detection risk. The auditor makes judgments about the nature of substantive tests based on an assessment of the effectiveness and efficiency of the available alternative procedures in detecting material misstatements. The procedures may include substantive analytical procedures, substantive tests of details, or a combination of both. Judgments about the nature, timing,[1] and extent of audit procedures are influenced by the following:

- Assessment of the inherent risk of material misstatement
- Materiality of transactions and balances
- Assessed level of control risk
- Amount, volume, and variability of transactions and balances
- Effectiveness of other available audit procedures

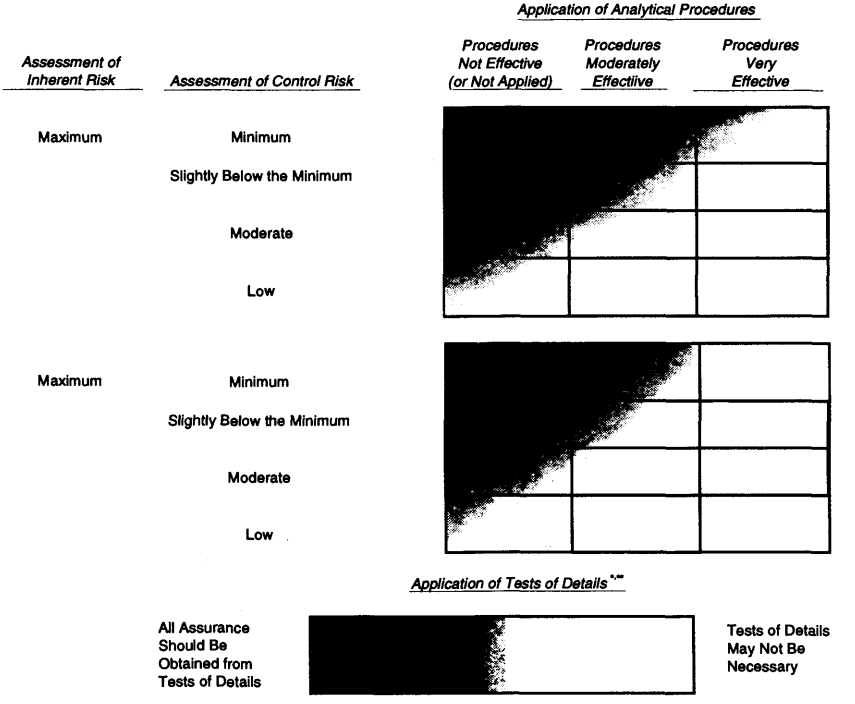
4.12 Figure 4-4 presents a table that shows how an auditor might use qualitative terms to relate assessments of inherent and control risk levels to the judgment about the appropriate level of detection risk for various combinations of substantive analytical procedures and tests of details. For example, assume that the auditor assesses inherent risk at the maximum and control risk as low (because tests of the design and operating effectiveness of relevant controls support an assessment of low). Using the table in figure 4-4, the auditor may plan to perform substantive analytical procedures that he or she judges to be very effective. Such procedures reduce audit risk to a sufficiently low level, eliminating the need to perform substantive tests of details. Alternatively, if no analytical procedures are performed as substantive tests, the auditor should obtain assurance from tests of details. Other approaches, including tables that utilize quantitative methods, are also appropriate.

[1] Decisions about the timing of audit procedures may be affected by other factors discussed in SAS No. 45, *Omnibus Statement on Auditing Standards—1983* (AICPA, *Professional Standards*, vol. 1, AU sec. 313, "Substantive Tests Prior to the Balance-Sheet Date").

Figure 4-4

Relating Decisions About Inherent and Control Risk to Decisions About Detection Risk Associated With Analytical Procedures and Tests of Details (for assertions related to significant account balances)

After assessing inherent and control risks, the auditor should consider the appropriate audit strategy including substantive analytical procedures and tests of details to restrict detection risk to an appropriate level.



* The auditor's reliance on substantive tests to achieve an audit objective related to a particular assertion may be derived from tests of details, from analytical procedures, or from a combination of both. The expected effectiveness of analytical procedures in identifying potential misstatements depends on, among other things, *(a)* the nature of the assertion, *(b)* the plausibility and predictability of the relationship, *(c)* the availability and reliability of the data used to develop the expectation, and *(d)* the precision of the expectation.

** As the shading moves from darker to lighter, the audit evidence needed from tests of details decreases. The lightest shading indicates that few or no tests of details are needed. When sampling is applied, the allowable risk of incorrect acceptance would be appropriately increased.

4.13 *For example, at Ownco, Inc., the auditor identified controls involving the owner-manager's review and approval of sales orders and subsequent review of aged trial balances, along with the bookkeeper's procedures to follow up on unmatched documents. In response to a control risk assessment of moderate for the completeness of sales and receivables (see exhibit B-5), the auditor limited tests of completeness to substantive analytical procedures involving a monthly comparison, by product line, of the current year's sales and gross profit margins with the same information for the prior year (that is, the analytical procedures were judged to be very effective in detecting possible material misstatements), and performed cutoff tests at year end.*

4.14 Although the inverse relationship between control risk and detection risk may permit the auditor to change the nature or the timing of substantive tests or limit their extent, ordinarily the assessed level of control risk cannot be sufficiently low to eliminate completely the need to perform substantive tests to restrict detection risk for all of the assertions relevant to significant account balances or transaction classes. Consequently, regardless of the assessed level of control risk, the auditor should perform substantive tests for significant account balances and transaction classes (see the table in figure 4-5). Depending on the assessed levels of inherent and control risk, if the auditor performs effective analytical procedures as substantive tests, substantive tests of details may be eliminated.

4.15 Figure 4-5 provides a more detailed illustration of how the auditor's control risk assessment may affect judgments about the nature, timing, or extent of substantive tests of the existence assertion for inventory. For purposes of this example, inventory represents a significant account balance amounting to 30 percent of total assets. It is located at three manufacturing plants comprising 50 percent, 30 percent, and 20 percent of the total. Inherent risk with respect to the existence assertion is judged to be high because of high turnover and susceptibility to shrinkage.

4.16 The audit procedures included in the illustration do not include tests of controls that would be required to support the assessed levels of control risk stated in the example. As discussed in chapter 3, the lower the control risk assessment, the greater the assurance the evidential matter should provide about the effectiveness of the design and operation of internal control. Some of the audit procedures included in the illustration may be designed appropriately as dual-purpose tests.[2] The auditor should consider whether the evidence obtained from the dual-purpose tests is sufficient to support the planned assessed level of control risk. If the evidence does not support the planned assessed level of control risk, the auditor should reassess control risk and revise substantive tests to restrict detection risk to an appropriate level.

Judgments About the Nature of Substantive Tests

4.17 Figure 4-4 illustrates the interrelationships among assessments of inherent risk, control risk, and judgments about substantive tests. The choice of whether to apply analytical procedures as substantive tests depends on their cost and effectiveness compared to the cost and effectiveness of tests of details. Judgments about the nature, timing, and extent of substantive tests of details

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[2] In assessing control risk, the auditor also may use tests of details of transactions as tests of controls. The objective of a test of details of transactions performed as a substantive test is to detect material misstatements in the financial statements. The objective of a test of details of transactions performed as a test of controls is to evaluate whether a control operated effectively. Although these objectives are different, both may be accomplished concurrently through performance of a test of details on the same transaction.

shown in figure 4-5 assume that analytical procedures performed as substantive tests are moderately effective in detecting misstatements that may be material. These analytical procedures might include, for example, an analysis comparing inventory turnover statistics for each location with prior periods and the industry as a whole (for example, industry norms). Figure 4-5 provides an illustration of only one level of detection risk associated with analytical procedures. The auditor might perform more (or fewer) effective analytical procedures as substantive tests that would allow the detection risk associated with substantive tests of details to increase (or decrease).

Judgments About the Timing of Substantive Tests

4.18 Tests of controls to support a lower assessed level of control risk may support a decision to modify the timing of substantive tests. In figure 4-5, as the evidence of effective internal control supports a lower control risk assessment, the timing of certain substantive tests are shown as being performed at other than the balance-sheet date. SAS No. 45, *Omnibus Statement on Auditing Standards— 1983* (AICPA, *Professional Standards*, vol. 1, AU sec. 313, "Substantive Tests Prior to the Balance-Sheet Date"), indicates that control risk need not be assessed below the maximum for the auditor to have a reasonable basis for extending audit conclusions from an interim date to the balance-sheet date; however, if the auditor assesses control risk at the maximum during the remaining period, the auditor should consider whether the effectiveness of certain of the substantive tests to cover that period will be impaired.

Judgments About the Extent of Substantive Tests

4.19 For some assertions for some accounts, it is efficient to assess control risk at the maximum. For example, for long-term debt it may be efficient to confirm all notes payable outstanding at year end. For accounts such as accounts receivable or inventory, however, it may be more efficient to reduce the extent of testing based on evidential matter supporting a control risk assessment below the maximum. As illustrated in figure 4-5, the extent of tests of details decreases as control risk decreases (assuming that inherent risk and the risk associated with analytical procedures are held constant).

4.20 The auditor's assessment of control risk below the maximum may affect the selection of key items for audit and may affect the auditor's decision about an appropriate risk of incorrect acceptance when the auditor decides to use audit sampling.

4.21 The auditor frequently selects key items for audit based on their monetary value (all items in excess of a stated monetary amount). Key items may also be selected based on the risk of material misstatement. For example, when testing inventory prices, the auditor may choose to test key items defined as those for which prices have changed significantly from prior periods. Based on a particular risk characteristic, the auditor may divide a population into two or more groups and audit one group based on a higher assessed level of control risk than that assessed for the other group. *Young Fashions, Inc., had problems with high personnel turnover in the Texas division (see exhibit C-1). The auditor may choose to test transactions and balances from that one location based on an assessed level of control risk slightly below the maximum and test the remainder of the population based on a lower assessed level of control risk.*

4.22 In other circumstances, the auditor may select key items based on materiality considerations and select a sample from the remaining population

Figure 4-5

Impact of Control Risk Assessment on Design of Substantive Tests of Details: An Illustration

Control Risk Assessment[2]	Allowable Risk	Design of Substantive Tests of Details for the Existence Assertion for Inventory[1]		
		Nature	**Timing**	**Extent**
Maximum[2,5]	Low[3,4]	— Observation of Inventories ● Observe client count procedures ● Auditor's control of count sheets or tag numbers used and unused ● Auditor's recounts (meaning "test counts")	— As of the balance-sheet date	— All three plants ● Sufficient staff to observe counts of all significant inventory classes ● For significant inventory classes ● Extensive tests of details[9]
		— Tests of compilation ● Arithmetic accuracy ● Prices ● Tying in test counts and auditor-controlled count sheets or tag numbers used and unused ● Review book to physical adjustment	— As of the balance-sheet date	— All three plants ● Extensive tests of details[9]
		— Cutoff tests ● Shipping ● Receiving	— As of the balance-sheet date	— All three plants
Slightly below maximum[2,6]	Low[3,4]	— Same as above	— Same as above	— Same as above, except that extent of observation and other tests of details might be reduced slightly because of lower control risk[9]

(continued)

Impact of Control Risk Assessment on Design of Substantive Tests of Details: An Illustration

Control Risk Assessment [2]	Allowable Risk	Design of Substantive Tests of Details for the Existence Assertion for Inventory [1]		
		Nature	**Timing**	**Extent**
Moderate[2,7]	Moderate[3,4]	— Observation of inventories ● Observe client count procedures ● Auditor's control of count sheets or tag numbers used and unused ● Auditor's recounts (meaning "test counts")	— At the inventory date (two months before year end)	— Two plants — to be determined based on size ● Fewer staff to observe counting ● For selected departments or areas ● Moderate extent of tests of details [9]
		— Tests of compilation ● Review book to physical adjustment ● Arithmetic accuracy ● Prices ● Tying in test counts and auditor-controlled count sheets or tag numbers used and unused	— As of the inventory date	— For the inventories observed ● Moderate extent of tests of details [9]
		— Cutoff tests ● Shipping ● Receiving	— As of the inventory date	— For the inventories observed
		— Test inventory transactions from inventory date to balance-sheet date ● Vouch purchases to and from perpetual records ● Vouch sales to and from perpetual records	— At or near the balance-sheet date and/or the inventory date	— For the inventories observed ● Moderate extent of tests of details [9]

Low [2,8]	Low [3,4]	— Substantive procedures for the inventories not observed [11]	— At or near the balance sheet date and/or the inventory date	— Sufficient to reduce the risk of undetected error to moderate [11]
		— Observation of cyclical inventory count procedures, including auditor's recounts (meaning "test counts")	— Selected dates throughout the year	— One or two of the plants ● Small number of staff ● Representative tests of details [9]
		— Tests of compilation [10] ● Arithmetic accuracy ● Prices ● Agreeing results of cyclical counts to perpetual records	— Throughout the year	— One or two of the plants ● Representative tests of details [9,10] ● Representative selection of items counted by the auditor or selected from items counted by the client [9]
		— Cutoff tests ● Shipping ● Receiving	— Throughout the year	— One or two of the plants ● Representative tests of details [9,10]
		— Test inventory transactions from inventory date to balance sheet date ● Vouch purchases to and from perpetual records ● Vouch sales to and from perpetual records	— Throughout the year	— One or two of the plants ● Representative tests of details [9,10]

(continued)

[1] Inventories are 30 percent of total assets. They are located at three manufacturing plants comprising 50 percent, 30 percent, and 20 percent of the total.

[2] The assessed level of control risk is related to the assurance obtained from evidential matter about the effectiveness of the design and operation of controls. The audit procedures included in the illustration do not include tests of controls that are required to obtain sufficient audit evidence about design and operating effectiveness to support the assessed levels of control risk stated in the illustration. However, some of the audit procedures included in the illustration may be appropriately designed as dual-purpose tests, in which evidence about operating effectiveness of controls is obtained concurrently with obtaining substantive evidence about the financial statement assertions.

[3] For purposes of the designations of detection risk as *low*, *moderate*, and *high* in the illustration, inherent risk to the existence assertion for inventories is judged to be *high* because of the high turnover and susceptibility to *shrinkage,* and these designations are intended to be consistent with figure 4-4.

[4] For purposes of the designations of detection risk as *low, moderate,* and *high* in the illustration, analytical procedures applied by the auditor as substantive tests are considered to be moderately effective in providing substantive audit evidence relative to the existence assertion for inventories, and these designations are intended to be consistent with figure 4-4.

[5] The entity maintains perpetual records and there is a history of significant book-to-physical adjustments. Physical inventories at all three plants are taken at year end. There is limited documentation of procedures to be used by the entity in taking the physical inventories, which, in the past, has resulted in confusion and frequent errors by the count teams.

[6] The entity maintains perpetual records and there is a history of significant book-to-physical adjustments. Physical inventories at all three plants are taken at year end. Procedures to be used by the entity in taking the physical inventories are well-designed and documented and, in the past, have been effectively carried out with relatively few errors by the count teams.

[7] The entity maintains perpetual records and there is a history of minor book-to-physical adjustments. Physical inventories at all three plants are taken two months prior to year end. Procedures to be used by the entity in taking the physical inventories are well-designed and documented and, in the past, have been effectively carried out.

[8] The entity maintains perpetual records and there is a history of minor book-to-physical adjustments. Physical inventories at all three plants are taken on a cyclical basis throughout the year. Procedures used by the entity in these cyclical physical counts are well-designed and documented and, in the past, have been effectively carried out.

[9] An example of an approach to selecting the extent of tests of details is presented in the table in figure 4-4.

[10] With respect to the audit objectives relating to compilation and cutoff, the entity has effective control activities. The auditor's understanding of these control activities is the basis for a planned control risk assessment of *low* with respect to those objectives. The auditor might significantly reduce or eliminate substantive testing of the accuracy and completeness of computer reports based on his or her understanding and testing of computer controls. Tests of these controls may be designed as dual-purpose tests.

[11] Other substantive procedures applied to inventories not observed might be selected in a variety of ways and are not specifically listed in the illustration. Examples include tests of details, such as vouching purchases and sales to and from the perpetual records; adjusting the extent of the tests of details of inventories that are observed upward to obtain the same extent of tests, in total, that would have resulted had inventories at all locations been observed (assuming that the inventories not observed are similar to those observed and are subject to the same controls, and that the related inherent risk is the same), and analytical procedures.

based on a uniform assessment of control risk. As the assessed level of control risk decreases, the acceptable level of detection risk increases, and the auditor may, for example, define key items differently or use smaller samples.

Chapter 5
Exhibits

Summary of Exhibits

5.01 The following exhibits illustrate the types of workpapers an auditor might prepare when obtaining an understanding of internal control and assessing control risk in an audit. The exhibits assume that the entity has not performed a self-assessment as outlined in *Internal Control—Integrated Framework* or otherwise. If the entity has performed a self-assessment, the auditor may consider using the self-assessment documentation as part of his or her documentation of the understanding of internal control.

5.02 The exhibits are not a full set of illustrated workpapers. The auditor ordinarily would include documentation of other account balance or class of transaction information. However, the amount and type of documentation is dependent on professional judgment.

5.03 In each exhibit, italics are used to illustrate information completed by the auditor.

Exhibit No.	*Workpaper Reference*	*Exhibit Description*
A-1	—	Comparison of exhibited companies
		Ownco, Inc.
B-1	Perm. File IC-1	Memorandum documenting an overview of internal control
B-2	Perm. File IC-2	Flowchart documenting the understanding of internal control for credit sales
B-3	Perm. File IC-3	Memorandum documenting the understanding of internal control for cash receipts and sales returns, adjustments, and credits
B-4	Perm. File IC-4	Memorandum summarizing potential risks of material misstatement for revenue and cash receipts
B-5	CR-1	Memorandum summarizing control risk assessments below the maximum
B-6	C-2	Memorandum documenting tests of controls and specific control risk assessments below the maximum for sales and receivables
		Young Fashions, Inc.
C-1	IC-10	Questionnaire documenting the understanding of matters that have a pervasive effect on internal control

Exhibit No.	*Workpaper Reference*	*Exhibit Description*
C-2	IC-20	Memorandum documenting the understanding of the class of transactions for sales transactions
C-3	IC-26	Flowchart documenting the understanding of internal control for cash receipts
C-4	E-1	Memorandum summarizing the control risk assessments for sales and accounts receivable
		Vinco, Inc.
D-1	—	Summary of documentation relating to internal control

Comparison of Exhibited Companies

Company Description	*Ownco, Inc.*	*Young Fashions, Inc.*	*Vinco, Inc.*
Nature of business	Manufacturer of plastic worms	Apparel manufacturer	Domestic wine distributor
Number of locations	1	3	8
Corporate structure	Single entity	Single entity	Single entity
Ownership	Sole owner	Nonpublic and closely held ownership	Public
Trading of common stock	None	None	New York Stock Exchange
Number of personnel			
Top management	1	4	8
Accounting dept.	2	10	35
Total	30	200	500
Segregation of duties	Limited	Good	Good

(continued)

Comparison of Exhibited Companies—continued

Company Description	*Ownco, Inc.*	*Young Fashions, Inc.*	*Vinco, Inc.*
Control Structure			
History of adjustments	Typically relate to tax accrual, inventory, and closing	Typically relate to estimates and cutoff	No adjustments required
Client control documentation	Nominal	Partial	Extensive and complete
Audit committees	None	None	Yes, meets 3 times a year
Internal audit function	None	None	Internal auditors are qualified and perform work related to financial statements
Accounting System			
Computer hardware	Microcomputer	Midrange minicomputer	Mainframe
Data processing	Centralized	Centralized	Centralized
Number of DP personnel	None	5	27
Revenue system	Batch	On-line entry, batch update	On-line entry, batch update

(continued)

Revenue Transactions

How is transaction initiated?	Sales order written by salesperson and approved by owner-manager who closely monitors sales	Sales order written by salesperson and approved by credit manager	Sales order written by salesperson or sent by customer. Approval by computer program, which checks valid customer number and approves credit
The accounting records, supporting documents, machine-readable information, and specific accounts involved in the processing of transactions			
Sales order	Manual, no computer entry	Manual, enter in computer upon approval	Manual, enter approval in computer upon receipt
Shipping report, bill of lading, packing slip	Manual, no computer entry	Manual, enter quantities in computer when shipment is prepared. Computer-generated packing slip, manual bill of lading	Computer-generated based on Daily Priced-out Sales Order File, which includes scheduled shipment date
Sales invoice	Manual entry of generated sales invoice	Customer and quantity data from packing slip. Prices in master file. Computer-generated sales invoice	Billing program generates sales invoice based on Daily Shipments File

(continued)

Comparison of Exhibited Companies—continued

Company Description	*Ownco, Inc.*	*Young Fashions, Inc.*	*Vinco, Inc.*
Computer media	Cumulative Sales Accounts Receivable Master File General Ledger Master File	Master-Price File Outstanding Transactions File Accounts Receivable Master File General Ledger Master File	Customer Master File Daily Priced-out File Sales Order File Daily Shipments File Daily Cash Receipts File Month-to-Date Sales File
Accounting processing	Computer processes invoices and posts transactions to journals, subsidiary ledgers, and general ledger		
Financial reporting process	Significant accounting services performed by auditor	No significant controls over financial reporting	Financial statement captions generated by general ledger system. No significant controls over financial statement drafting

5.05

Exhibit B-1
WP Index *PERM. FILE IC-1*

Ownco, Inc.

Understanding of Internal Control

CLIENT	*Ownco, Inc.*		BALANCE SHEET DATE *12/31*	
Completed by:	*mlw*	Date: *9/30/X5*	Reviewed by: *jp*	Date: *11/02/X5*
Updated by:	*mlw*	Date: *9/15/X6*	Reviewed by: *jp*	Date: *10/29/X6*
Updated by:	____	Date: _____	Reviewed by: _	Date: _____
Updated by:	____	Date: _____	Reviewed by: _	Date: _____
Updated by:	____	Date: _____	Reviewed by: _	Date: _____

Overview

The Company manufactures plastic fishing worms at one location and is managed by its sole owner, Ed Jones. Management of the company is dominated by Jones, who is responsible for marketing, purchasing, hiring, and approving major transactions. He has a good understanding of the business and the industry in which it operates. Jones believes that hiring experienced personnel is particularly important because there are no layers of supervisory personnel and thus, because of limited segregation of duties, few independent checks of employees' work. Jones has a moderate-to-conservative attitude toward business risks. The business has demonstrated consistent profitability, and because Jones considers lower taxes to be as important as financial results, he has a conservative attitude toward accounting estimates.

Jones and Pat Willis, the bookkeeper, readily consult with our firm on routine accounting questions, including the preparation of accounting estimates (tax accrual, inventory obsolescence, or bad debts). Our firm also assists in assembling the financial statements.

The Company's board of directors is composed of family members. The board is not expected to monitor the business or the owner-manager's activities.

Most of the significant accounting functions are performed by Willis, the bookkeeper, and Jones's secretary, Chris Ross. Willis was hired by the company in 19X0, has a working knowledge of accounting fundamentals, and we have no reason to question her competence. Willis regularly consults with our firm on unusual transactions, and past history indicates that it is rare for adjustments to arise from errors in the processing of routine transactions.

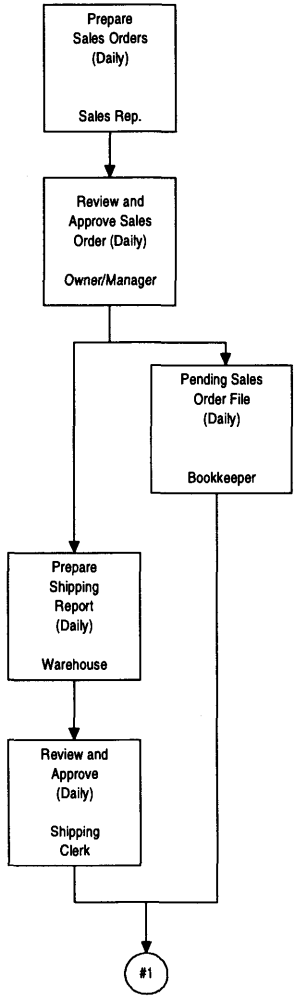
Jones made the decision to purchase a microcomputer and a turnkey accounting software package. The source code is not available for this software. Access to the computer and computer files is limited to Willis, Ross, and Jones, who effectively have access to all computer files.

The owner-manager carefully reviews computer-generated financial reports, such as reports on receivable aging, and compares revenues and expenses with prior years' performance. He also monitors the terms of the long-term debt agreement that requires certain ratios and compensating balances.

Exhibit B-2
Page 1 of 2
WP Index *PERM. FILE IC-2*

Ownco, Inc. Sales

Completed by: *m/w* **Reviewed by:** *jp*
Date: *9/30/X5* **Date:** *11/02/X5*



At the time a sale is made, the Sales Rep. enters information such as customer name and number, shipping and inventory description, stock number, and price on a four-part prenumbered sales order (S.O.) form. Written explanations of price variances are attached.

The owner/manager (Mr. Jones) reviews each S.O. for proper price, approves the extension of credit to the customer, and signs the S.O. Copy #1 is sent to the bookkeeper. Additional copies are sent to the warehouse, the salesman, and the customer. Mr. Jones reviews sales orders after the fact on return from being away.

The bookkeeper receives approved S.O. #1 from the owner/manager and files them numerically, pending receipt of the shipping report.

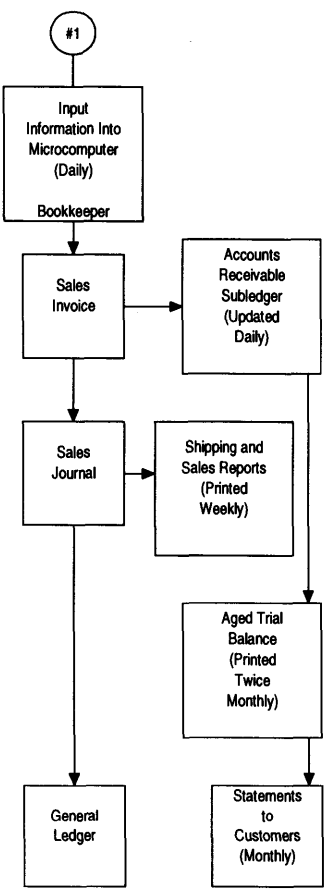
Upon receipt of S.O. #2, the warehouse supervisor ensures that the owner/manager has signed the S.O. and then has the warehouse pull the goods and prepare the shipping report.

The shipping clerk receives the shipping report, S.O. #2, and the pulled goods from the warehouse. The shipping clerk verifies that the goods agree with the S.O. and the shipping report, initials the shipping report, prepares the goods for shipment, and ships the goods.

The shipping report goes to the bookkeeper to be matched with the sales order. Copies also go to the customer and to the shipping supervisor (for filing in the shipping dept.).

Ownco, Inc. Sales

Completed by: *m/w* **Reviewed by:** *jp*
Date: *9/15/X6* **Date:** *10/29/X6*



The bookkeeper enters stock number, quantity, prices, and customer information into the microcomputer.

The computer prints sales invoices and updates the cumulative sales and accounts receivable master files daily. The bookkeeper matches computer-generated invoices with sales orders and shipping reports for completeness. The bookkeeper also investigates unmatched sales orders and shipping reports monthly. The original sales invoice (including a breakaway remittance advice) is sent to the customer.

The matched sales order, shipping report, and sales invoice are stapled together and filed by sales invoice number.

At the end of the day a procedure is run to post transactions to the cumulative sales file, the accounts receivable master file, and the general ledger.

The owner/manager reviews sales reports and shipping reports weekly.

The owner/manager reviews the aged trial balance twice monthly and follows up on past-due accounts. The owner/manager pays particular attention to accounts over 30 days past due.

Statements are mailed to customers monthly. The statement asks for disputed balances to be discussed with Mr. Jones, the owner/manager.

The bookkeeper reconciles the accounts receivable subsidiary ledger with the general ledger monthly.

Exhibit B-3
WP Index *PERM. FILE IC-3*

Ownco, Inc.
Understanding of Internal Control (cont.)

Completed by:	*mlw*	Date:	*9/30/X5*	Reviewed by:	*jp*	Date:	*11/02/X5*
Updated by:	*mlw*	Date:	*9/15/X6*	Reviewed by:	*jp*	Date:	*10/29/X6*
Updated by:	____	Date:	_____	Reviewed by:	__	Date:	_____
Updated by:	____	Date:	_____	Reviewed by:	__	Date:	_____
Updated by:	____	Date:	_____	Reviewed by:	__	Date:	_____

Understanding of Cash Receipts

Checks and remittance advices are received by Chris Ross, Ed Jones's secretary. A complete listing of all checks received is prepared by Ross. The original list is retained, and a copy is given to Pat Willis (the bookkeeper), along with the checks and remittance advices.

Willis prepares the bank deposit and adds the account code to the items listed. The deposit is then delivered to the bank, and a copy of the deposit slip, receipted by the bank, is returned to Ross.

Ross compares the deposit slip with the original list of checks.

Willis inputs customer and cash receipts information into the microcomputer. Willis runs the program that updates the accounts receivable master file and the cash receipts file daily. Transactions are posted to the general ledger at the same time. The cash receipts journal, subledgers, and general ledger are printed on demand.

Willis compares the computer-generated accounts receivable subsidiary ledgers with the general ledger control account monthly. Willis also prepares the bank reconciliation monthly, which is reviewed by Jones.

Returns, Adjustments, and Credits

All returns, adjustments, and credits are approved by Jones. Such transactions are not entered into the computer by Willis without Jones's approval. A report of such transactions is printed monthly and is reviewed by Jones.

Exhibit B-4
WP Index *PERM. FILE IC-4*

Ownco, Inc.
Understanding of Internal Control (cont.)

Completed by:	*mlw*	Reviewed by:	*jp*
Date:	*9/15/X6*	Date:	*10/29/X6*

Revenue and Cash Receipts
Summary of Potential Risks of Material Misstatements

Summarized below are matters noted while obtaining an understanding of the revenue and cash receipts classes of transactions that may affect the risk of material misstatement.

1. *Sales and cash receipts should be posted to the respective journals daily. However, no checks exist to ensure that all transactions are posted to the journals and the general ledger.*
2. *In addition to the owner-manager, the bookkeeper and the owner-manager's secretary have access to all computer files.*
3. *There is no review of adjustments made to accounting records through journal entries, except indirectly through review of monthly financial statements.*
4. *As noted on IC-1, accounting estimates are not adjusted by the client during the year. (We propose adjustments to estimates at year end.)*

NOTE: The audit program **[not illustrated here]** adequately addresses these issues.

[Ed. Note: Some of the matters noted herein could be considered to be "reportable conditions." This example is intended to illustrate possible documentation of the understanding of internal control and is not intended to illustrate communicating such matters.]

Exhibit B-5
Page 1 of 4
WP Index *CR-1*

Ownco, Inc.
Understanding of Internal Control

CLIENT *Ownco, Inc.* BALANCE-SHEET DATE *12/31/X6*
Completed by: *mlw* Date: *9/15/X6* Reviewed by: *jp* Date: *10/29/X6*

Control Risk Assessment and Impact on Substantive Procedures

We obtained sufficient knowledge of the design of internal control to plan the audit, and determined that the controls have been placed in operation.

Workpapers related to our understanding of internal control are included at *Perm. Files IC-1 through IC-13.* [Only Perm. Files IC-1 through IC-4 are illustrated in exhibits B-1 to B-4.]

Except as noted below, and on the reference workpapers, we have assessed control risk to be at the maximum and have designed our substantive audit procedures accordingly.

For those significant assertions related to the account balances indicated below, we have assessed control risk at less than the maximum, and the effects of such assessment have been reflected in our audit program. For assertions for each account balance or class of transactions where control risk has been assessed at less than the maximum, tests of controls (this may include either knowledge of operating effectiveness gained while obtaining the understanding of internal control or more extensive tests of controls conducted to support the assessed level) have been performed to provide evidential matter sufficient to evaluate the effectiveness of the controls relevant to the various assertions.

CASH **WORKPAPER REF**_____

ACCOUNTS RECEIVABLE **WORKPAPER REF** *C-2*

[Illustrated at Exhibit B-6]

Control risk is assessed as slightly below the maximum for the following assertions: existence and valuation (other than the net realizable value objective for which control risk is assessed at the maximum). Control risk for completeness is assessed as moderate. Accordingly, primary audit evidence for existence, ownership, and valuation (except net realizable value) will be obtained by year-end confirmation of all key items (over $3,500), a nonstatistical representative sample of the remaining population (see workpaper C-5 for basis of sample size **[not illustrated here]***), and cutoff tests at year end. Evidence about the net realizable value objective will be obtained by procedures set forth in the audit program, which consider: subsequent cash collections, the aged trial balance, analytical procedures, and review of specific accounts with the owner-manager. Audit evidence for completeness will be obtained by application of (1) year-end cutoff tests and (2) analytical procedures applied to sales (comparison of the prior year's sales and gross profits to the current year's sales and gross profits on a month-by-month basis, together with discussions with the owner-manager and inspection of corroborating evidence for unexpected fluctuations).*

INVENTORY **WORKPAPER REF** *D-5*

[Not illustrated here]

Prior experience and tests of controls indicate that the client has good controls over physical counts and pricing of material items in inventory. These tests of controls provide sufficient evidence to support a low control risk assessment for the existence and gross valuation assertions. (The auditor chose a strategy of performing additional tests of controls to support a lower control risk assessment for these assertions.)

FIXED ASSETS **WORKPAPER REF**____

OTHER ASSETS **WORKPAPER REF____**

ACCOUNTS PAYABLE **WORKPAPER REF** *N-3*

[Not illustrated here]

Prior experience and tests of effectiveness of controls over accruals and payables support a moderate assessed level of control risk for existence and completeness. It is most efficient to test payables by reviewing all subsequent cash disbursements over $5,000.

ACCRUED LIABILITIES **WORKPAPER REF____**

NOTES PAYABLE AND LONG-TERM DEBT **WORKPAPER REF____**

OTHER LIABILITIES **WORKPAPER REF**____

_____

_____

_____

SHAREHOLDERS' EQUITY **WORKPAPER REF**____

_____

_____

_____

REVENUE ACCOUNTS **WORKPAPER REF** *X-8*

[Not illustrated here]

Our tests of controls support the conclusion that effective controls have been placed in operation during the year by the owner-manager primarily to review the reasonableness of recorded sales. A moderate control risk assessment for completeness, existence, and valuation assertions supports an audit strategy of using analytical procedures as the primary substantive test (along with tests of receivables) for revenue accounts.

EXPENSE ACCOUNTS **WORKPAPER REF** *X-10*

[Not illustrated here]

Our tests of controls support the conclusion that effective controls have been placed in operation during the year by the owner-manager to review the reasonableness of expense accounts. A moderate control risk assessment for existence and valuation assertions supports an audit strategy of using analytical procedures as the substantive test for many expense accounts. The primary test of completeness of expenses will be the search for unrecorded liabilities and the review of subsequent cash disbursements.

Exhibit B-6
Page 1 of 3
WP Index *C-2*

Ownco, Inc.
Tests of Controls
Relevant to Accounts Receivable

CLIENT *Ownco, Inc.* BALANCE-SHEET DATE *12/31/X6*
Completed by: *mlw* Date: *9/15/X6* Reviewed by: *jp* Date: *10/29/X6*

[Ed. Note: This workpaper includes a discussion of the results of the tests of controls that support a control risk assessment below maximum for certain assertions related to accounts receivable. (If control risk were assessed at maximum for these assertions, tests of controls would not be required.) With more extensive procedures, the auditor might have been able to assess control risk as lower for certain assertions.]

I have reviewed the permanent file documentation of the understanding of internal control (IC) on W/P IC-1, 2, 3, & 4. While confirming this understanding, I performed the following procedures that provided some evidence of the operating effectiveness of IC relevant to the audit of accounts receivable.

OVERALL CONTROL ENVIRONMENT ISSUES. During the period 9/11/X6 to 9/15/X6, I made inquiries of Jones regarding operating performance for the year compared with prior years, new investments, and financing activities during the year. He continues to demonstrate a conservative attitude toward business risks, and the company appears to have maintained a significant cushion beyond working capital, dividend, and compensating balance requirements of debt agreements. There has been no turnover of personnel working directly with the accounting system. Based on inquiries of Jones and Willis and examination of computer reports during the review of the accounting system, the company continues to use the same computer software as in prior years, and no modifications have been made to the company's computer system.

OWNER-MANAGER MONITORING. During the period 9/11/X6 to 9/15/X6, inquiries were made of Jones regarding the extent of his procedures to approve credit and sales, review the sales and shipping reports, and review the accounts receivable aged trial balance. In addition, inquiries were made of Pat Willis regarding the extensiveness of the owner-manager review of computer reports. Jones's follow-up on older accounts was evident from our discussion of the accounts, and corroborating inquiries of Willis and Ross indicate that receivables are followed carefully by Jones. I also examined evidence of Jones's follow-up procedures by way of notations on aged trial balances and in correspondence with customers. Jones also indicated that, based on his approval of sales orders and subsequent review of receivables, omissions, existence, or pricing errors of significant amounts were unlikely. Willis indicated that on occasion Jones questioned receivable balances and the pricing of sales included in such balances. Because of this owner-manager involvement, large errors in quantities and prices are unlikely.

ACCOUNTING SYSTEM AND RELEVANT CONTROL ACTIVITIES. Inquiries were made of Jones and Willis about the nature of the company's sales and cash receipt transactions and the ownership of receivables. Selected transactions (see W/P XX-2 **[not illustrated here]***) were traced through the accounting system to confirm the understanding of the system and significant control activities and to confirm our understanding that the company owns its receivables. No errors were noted in the pricing, classification, or the time period in which the transactions were recorded (several transactions were chosen near month end). On 9/12/X6 I reviewed the open files for sales orders, shipping reports, and follow-up procedures with Willis. Unmatched sales orders were not over four days old, with the exception of one special order, of which both Willis and Jones were aware. There were no unmatched shipping documents. Based on inquiry of Jones, Willis appears to follow up on unmatched sales orders and shipping reports at the end of the month and randomly throughout the month, as time allows. Several bank reconciliations were examined for unusual items, and one reconciliation was tested (see W/P XX-3* **[not illustrated here]***).*

Based on the above tests of controls, involving inquiry of several individuals, observation of personnel in the performance of their duties, examination of evidence supporting the review of reports by management, the proper recording of transactions, and follow-up and reconciliation controls performed by Willis, control risk is assessed as indicated below for the following assertions or audit objectives (otherwise control risk is assessed at the maximum):

1. *Completeness of recorded sales and receivables—moderate*
2. *Existence of recorded sales and receivables—slightly below the maximum*
3. *Valuation of individual receivables at their gross amount—slightly below the maximum*
4. *Rights and obligations—not a significant assertion*

On 2/1/X7 I made inquiries of Jones and Willis about changes in the controls discussed above. Both indicated that no changes had been made, which is consistent with prior experience. In addition, several transactions for the period 9/13/X6 to 12/31/X6 were traced through the system, and procedures were performed to test year-end cutoff and bank reconciliations. The above interim control risk assessments appear to be appropriate for the entire year under audit.

5.06

Exhibit C-1
Page 1 of 6
WP Index *IC-10*

Young Fashions, Inc.
Understanding of Internal Control

CLIENT *Young Fashions, Inc.* BALANCE-SHEET DATE *09/30/X5*
Completed by: *adm* Date: *5/10/X5* Reviewed by: *dgw* Date: *5/28/X5*

Overview of Internal Control

An understanding of matters that have a pervasive effect on internal control should be obtained on all engagements. Matters that have a pervasive effect generally influence the overall financial reporting system. Each component of internal control may partially have a pervasive effect. Ordinarily, the auditor's understanding of the control environment, risk assessment, information and communication, and monitoring matters that have a pervasive effect may allow the auditor to obtain a sufficient understanding of control activities. In addition, the auditor may determine whether account balance or class of transaction controls have been placed in operation.

The following form may be used to document the auditor's understanding of matters that have a pervasive effect on internal control. In considering the various internal control components, attention should be focused on management's overall attitude, awareness, and actions, rather than on specific items related to the components.

CONTROL ENVIRONMENT

The control environment reflects the overall attitude, awareness, and actions of the board of directors, management, owners, and others concerning the importance of control and its effect on establishing, enhancing, or mitigating the effectiveness of specific controls. The control environment includes such factors as:

- Integrity and ethical values
- Commitment to competence
- Board of directors or audit committee
- Management's philosophy and operating style
- Organizational structure
- Assignment of authority and responsibility
- Human resource policies and practices

INTEGRITY AND ETHICAL VALUES

Points to Consider:

- Policies regarding acceptable business practice or conduct
- Whether management conducts business on a high ethical plane
- Pressure to meet unrealistic performance targets and extent to which compensation is based on achieving performance targets

Relevant Control Environment Features:

There are few written policies regarding acceptable business practices. A written policy does exist on investments by key company personnel in vendors and sup-

pliers. Other policies are informal and discussed in employee orientation. The company's focus is on operations and earnings growth with an emphasis on bonus arrangements to increase sales and earnings. This emphasis has the potential to provide some incentive to meet or exceed performance targets; however, there has been no indication of overstated sales or earnings in the past year.

COMMITMENT TO COMPETENCE

Points to Consider:

- Defining tasks that make up a particular job (e.g., formal or informal job descriptions)
- Analysis of the knowledge and skills needed to perform jobs adequately

Relevant Control Environment Features:

In conjunction with human resource policies and practices, the company defines tasks to be accomplished in a flexible manner to match its growth focus. The company also analyzes whether individuals possess the requisite knowledge and skills to perform their jobs adequately.

BOARD OF DIRECTORS OR AUDIT COMMITTEE [Describe the board of directors and audit committee.]

Points to Consider:

- Existence of written charter for audit committee
- Communication between the board, audit committee, and external and internal auditors
- Is audit committee an informed, vigilant, and effective overseer of the financial reporting process and the company's internal control?
- Regularity of meetings and qualification of members of audit committee

Relevant Control Environment Features:

The board of directors consists of seven members: four officers of the company, a nonofficer shareholder, and two outside directors (a lawyer and a banker). The company has not formed an audit committee.

MANAGEMENT PHILOSOPHY AND OPERATING STYLE

Points to Consider:

- Dominance by one or a few individuals
- Management's attitude toward, and monitoring of, business risks
- Frequency of interaction between senior management and operating management
- Management's financial reporting philosophy
- Management's willingness to consult with its auditors on accounting issues and adjust the financial statements for likely misstatements

- Management's responsiveness to prior recommendations
- Management priority given to internal control
- Control environment over accounting estimates

Relevant Control Environment Features:

The company is a young company (10 years old) and key management decisions are made by a few officers (see organizational structure). The company is primarily concerned with the business pressures associated with operations and earnings growth. Management readily accepts adjustments on clearcut issues but is known to aggressively challenge proposed adjustments involving accounting estimates. There are no formal controls over accounting estimates and bonus arrangements (viewed as a key to increasing sales and earnings), which may provide some bias to overstate earnings. Management has made some changes to internal control based on auditor recommendations, but management's priorities are in other areas.

ORGANIZATIONAL STRUCTURE [Briefly describe the entity's organizational structure (with organizational chart attached if available).]

Points to Consider:

- Clarity of lines of authority and responsibility
- Level at which controls are established
- Adherence to such controls
- Adequacy of supervision and monitoring of decentralized operations
- Appropriateness of organizational structure for size and complexity of the entity

Relevant Control Environment Features:

The company is in the apparel business. Company headquarters is in California and manufacturing locations are in California, Texas, and South Carolina. Significant operating and financial decisions are centralized at company headquarters. Key decisions rest with an active management team of the CEO (and majority shareholder), COO, CFO, and sales manager. Virtually all operating decisions relative to data processing have been delegated to the DP manager. Divisional management reports to the COO and divisional sales and profits are carefully monitored by the key management team.

ASSIGNMENT OF AUTHORITY AND RESPONSIBILITY

Points to Consider:

- Clear assignment of responsibility and delegation of authority
- Appropriateness of control-related standards and procedures
- Number of people, including consideration of requisite skill levels, relative to the size of the entity and nature and complexity of activities and systems

Relevant Control Environment Features:

Delegation of authority and responsibility is informal. Key officers actively supervise business operations with the exception of data processing. Business decisions affecting data processing are the responsibility of the DP manager. Divisional management participates with key officers in making business decisions, but authority rests largely at the top. There are a few written policies regarding acceptable business practices. A written policy does exist on investments by key company personnel in vendors and suppliers. Other policies are informal and discussed in employee orientation. The accounting personnel appear to possess adequate skills and the accounting department is currently adequately sized for the entity's activities. However, the company's growth may stretch the accounting function at times.

HUMAN RESOURCE POLICIES AND PRACTICES

Points to Consider:

- Background, experience, and competence of personnel
- Personnel turnover
- Personnel training
- Employee workload
- Resources necessary to discharge assigned duties

Relevant Control Environment Features:

The CFO has been on the job only for 18 months. There is some ongoing employee turnover caused by low wages. In the current year, employee turnover at the Texas manufacturing location has been higher than normal for inventory and shipping personnel, who input significant information into the computerized accounting system. In addition, some workload problems exist during peak seasons (Dec.-Jan. and June-July). All personnel policies and hiring practices for the DP department are the responsibility of the DP manager, who tries to hire personnel with significant DP experience rather than train entry-level personnel.

RISK ASSESSMENT

Points to Consider:

- Entitywide objectives are broad and communicated to employees and board of directors
- Risks arising from external and internal sources are identified and analyzed
- Clear budget, profit, and other financial and operating objectives
- Process of managing change

Relevant Risk Assessment Factors:

Management has implemented a five-year strategic plan for the company that includes objectives and analyzes risk factors. The strategic plan is developed on a top-down basis and reviewed by the board of directors. Management reinforces the objectives through their communications. The organizational structure allows for the timely communication and identification of risks.

INFORMATION AND COMMUNICATION

Points to Consider:

- Obtaining external and internal information and providing timely and adequate reports on the entity's performance to management
- Management's support for the development and maintenance of an information system both human and financial
- Establishment of external and internal channels of communication
- Adequacy of communication across the organization and the completeness and timeliness of information
- Monitoring and compliance requirements imposed by legislative or regulatory bodies, or by others outside the entity (such as an active review of bank loan agreements)

Relevant Information and Communication Features:

Data processing, which is centralized in the head office, operates an IBM AS/400 with telecommunications links from divisional locations (15 terminals at head office and eight at divisional locations). Data from remote locations is processed in batches rather than on an on-line basis. The company uses primarily purchased software. Most of the purchased software is three to five years old and, based upon the company's rapid growth and diversification, is now somewhat limited in its ability to keep pace with functional business requirements. Vendor documentation is maintained, but DP management admits that documentation of changes could be better. Likewise, the hardware/technical environment is nearing its capacity.

Senior management does not appear to be sensitive to the functional and technical limits of data processing, but nonetheless expects data processing to effectively serve the company's business needs and be accurate. Management has delegated authority and responsibility to the DP manager and is not actively involved in setting or monitoring policies, although the CFO and other management personnel do review DP output, primarily for the purpose of controlling operations. Although a formal DP security policy does not exist, the DP manager has performed an assessment of sensitive programs and data files to determine whether access restrictions are appropriate. The company generally uses vendor-authorized consultants to make system changes, although the DP manager has made simple system changes.

MONITORING

Points to Consider:

- Extent to which employees obtain evidence as to whether the system of internal control continues to function
- Separate evaluations of internal control made by management, internal auditors, or external auditors
- Extent to which communications from external parties corroborate internally generated information or indicate problems
- Periodic comparison of amounts recorded by the accounting system with physical assets

Relevant Monitoring Features:

The board of directors compares performance with projected results on a quarterly basis. Budgets are set informally by key officers (rather than by more formal methods involving middle management). Top management reviews actual results against budget monthly for each division. Although variations from budgets are reviewed on a regular basis, management does not extensively document its follow-up activities. As a part of this review and other activities, management and the board obtain evidence relating to how internal control is operating.

In addition, the bank loan officer meets regularly with Young Fashions' management to monitor the company's financial performance, which heightens management's consciousness about taking and monitoring business risks.

The company does not have an internal audit function.

Briefly discuss the significant elements of internal control that have a pervasive effect on the risk of material misstatement in the financial statements.

MAJOR CONCERNS:

1. *The control environment is reflective of the company's recent growth. Many control method features, such as budgetary control or the delegation of responsibility for data processing, are informal and rely on monitoring by management at appropriate levels.*
2. *Management incentives create an environment with a moderate bias to overstate earnings.*
3. *Turnover of personnel responsible for input of shipping and billing information at the Texas division is likely to increase the risk of routine processing errors. This problem was acute during peak seasons.*

[Ed Note: Some of the matters noted in this questionnaire could be considered to be "reportable conditions." This example is intended to illustrate possible documentation of the understanding of internal control and is not intended to illustrate communicating such matters.]

Exhibit C-2
Page 1 of 4
WP Index *IC-20*

Young Fashions, Inc.
Understanding of Internal Control (cont.)
Understanding of Class of Transactions: *Sales*

CLIENT *Young Fashions, Inc.* BALANCE-SHEET DATE *09/30/X5*
Completed by: *sdm* Date: *5/12/X5* Reviewed by: *dgw* Date: *5/28/X5*

1. How is the transaction initiated?

Nationwide sales force writes sales orders that are approved by credit manager in head office. Changes to master-price files occur as necessary to move inventory. The sales manager reviews and approves authorized changes to the master-price file by regularly reviewing a "was-is" report on price changes. Personnel in sales manager's office are responsible for updating master-price file. Sales returns and allowances are not significant because the company's policy is to sell goods without the right of return, except under specific circumstances.

2. Describe the source documents that support the transactions.

Sales Orders	*—Manually written and approved (see above)*
	—Copy filed in accounting with sales invoice.
Bill of Lading	*—Manually written in shipping department.*
	—Copy filed in shipping.
Packing Slip	*—Prepared by computer; information describing items and quantities shipped is input over terminal at each shipping location.*
	—Copy filed in accounting with sales invoice.

Note: Information from the sales order and the bill of lading is input into the computer through a remote terminal at divisional offices.

3. Describe the computer media that is used in the processing of accounting information.

Master-Price File

Outstanding Transaction File

Cumulative Sales File

Accounts Receivable Master File

General Ledger Master File

4. Describe the documents and reports generated by the accounting system.

Sales Invoice—The invoice is generated by the computer (see processing below).
—Invoices are scanned by accounts receivable employees before filing with packing slip and sales order.

Outstanding Orders Report—Prepared daily.

Unmatched Document Report—Lists unmatched sales orders, bills of lading, packing slips, and sales invoices: prepared weekly and at month end.

Changes in Master-Price File—Run when changes are made. Filed in sales manager's office (see discussion on page 1 of this exhibit).

Sales Journal—Filed monthly.

Accounts Receivable Aged Trial Balance—Prepared weekly; month-end reports are kept on hand.

Monthly Statements to Customers—No hard copies retained by the company.

Weekly Sales Summary by Customer and by Inventory Product Number—Copies are kept by sales manager.

General Ledger—Filed monthly.

5. Describe the accounting processing, records and files (including how frequently they are updated), and other computer media that are used to process the transaction, including how transactions are reflected in journals of original entry and the general ledger.

Information on sales orders is input by sales department into an outstanding transactions file daily.

Information on goods shipped is input daily to prepare packing slip, sales invoice, and update outstanding transactions file. Transactions are posted daily to the cumulative sales file and accounts receivable master file when sales order, bill of lading, packing slip, and invoice information match.

See above for description of how changes to master-price file are initiated and processed.

6. Describe control activities understood while obtaining an understanding of the matters that have a pervasive effect on internal control.

1. *Once a week, and at month end, an accounts receivable clerk reconciles subsidiary ledgers with the general ledger control account.*
2. *The computer generates a list of unmatched sales orders, bills of lading, packing slips, and sales invoices weekly and at month end. A clerk in accounts receivable follows up on items over five days old.*

3. *The computer checks the numeric sequences of sales orders, bills of lading, packing slips, and sales invoices.*
4. *The DP manager periodically reviews an access violation report that reports access violations such as by use of utility programs to modify data files by DP personnel or access to A/R master file and A/R G/L transaction file by accounts receivable clerks.*

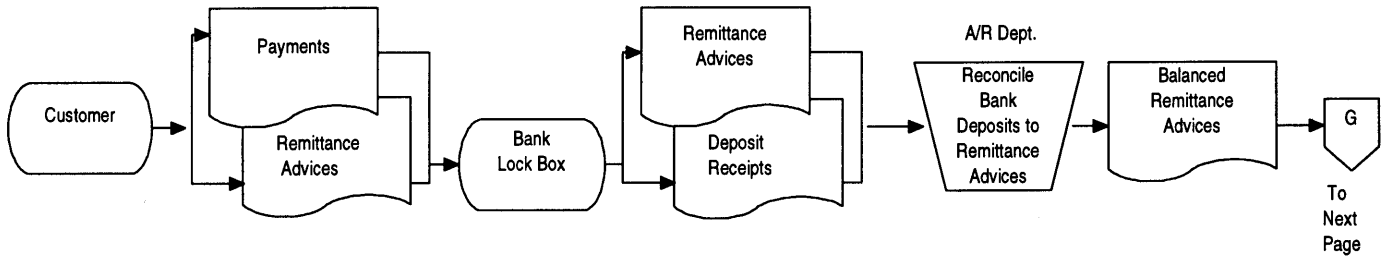
7. Describe other control activities that are relevant to the audit.

An understanding of additional control activities is not considered necessary to plan the audit.

YOUNG FASHIONS, INC.
UNDERSTANDING OF CASH RECEIPTS

Prepared by: *sdm*
Date: *7/12/X5*

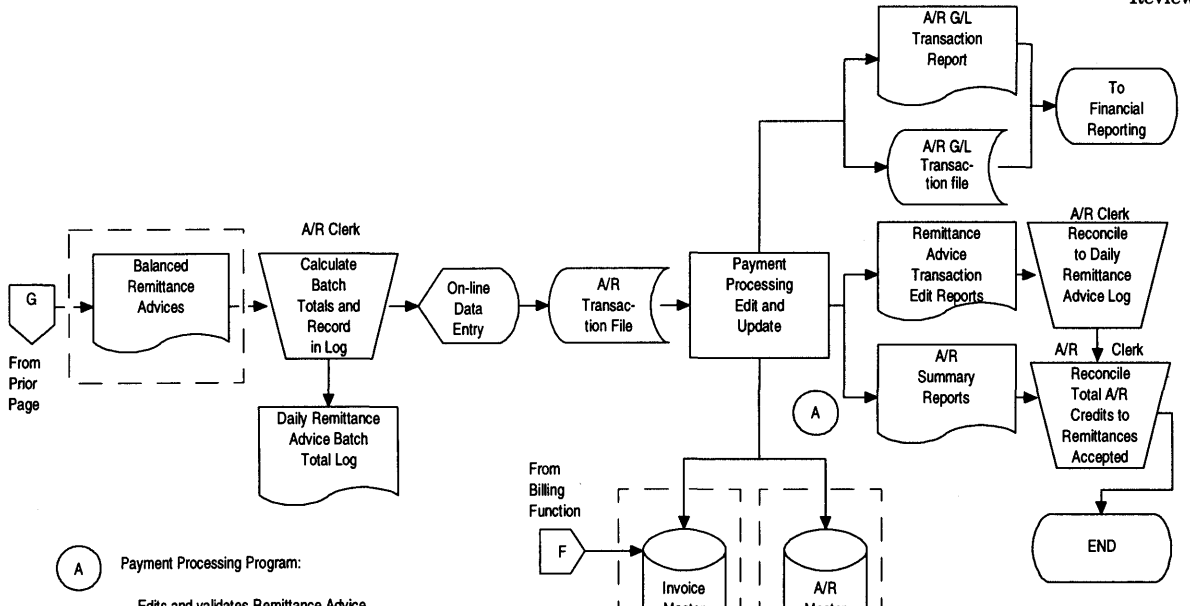
Reviewed by: *dgw*
Date: *8/25/X5*



Prepared by: *sdm*
Date: *7/12/X5*

WP Index *IC-26*

Reviewed by: *dgw*
Date: *8/25/X5*



A — Payment Processing Program:

- — Edits and validates Remittance Advice records on the A/R Transaction File.
- — Updates Invoice Master and A/R Master File records to reflect payments.
- — Produces edit reports of accepted and rejected Remittance Advice transaction records.

NOTE: Bank reconciliations are performed by an accountant working under the direction of the CFO.

Exhibit C-4
Page 1 of 2
WP Index *E-1*

Young Fashions, Inc.
Understanding of Internal Control (cont.)
Summary of Control Risk Assessment

CLIENT *Young Fashions, Inc.* BALANCE-SHEET DATE *09/30/X5*
Completed by: *sdm* Date: *5/19/X5* Reviewed by: *dgw* Date: *5/28/X5*
Control risk assessment relevant to: *Sales/Accounts Receivable*

Instructions: In the space provided below, address the relevant controls and the related tests of controls (this may include either knowledge of operating effectiveness acquired while obtaining the understanding of internal control or additional tests of controls) for assertions for which control risk is assessed at less than the maximum.

Existence and Occurrence:

The accounting system requires that a sales invoice be matched with sales order, bill of lading, and packing slip information before the cumulative sales file and accounts receivable master file are updated. No invoices were noted without a supporting sales order, bill of lading, or packing slip during my examination of selected reports of unmatched documents. Based on discussions with accounts receivable personnel on 5/11/X5 and with selected shipping personnel at Texas and California locations on 4/18/X5 and 5/8/X5, respectively, invoices are not processed until all supporting information is available. In addition, selected sales transactions (see W/P XX-4-1 **[not illustrated here]***) were traced through the system and all transactions represented valid sales.*

Inquiries of the accounts receivable clerks on 5/13/X5 indicated that these clerks could access both the A/R master file and the A/R G/L transaction file, and because of their access to the main menu at log on, they could modify specific records that would not be detected by the monthly reconciliation of the subsidiary ledgers to the general ledger. However, our substantive audit procedures will include a review of all nonstandard general ledger transactions to determine the propriety of any unusual entries. These clerks are also responsible for the review of the DP output from the accounts receivable system.

Based on this examination of evidential matter, combined with the results of extended inquiry of several individuals and corroborating observations, control risk is assessed as slightly below the maximum.

Completeness:

Client controls relevant to completeness relate primarily to the computer listing of unmatched sales orders, bills of lading, packing slips, and sales invoices. Based on discussions with accounts receivable personnel on 5/11/X5 and with selected shipping personnel at Texas and California locations on 4/18/X5 and 5/8/X5, respectively, it normally can take up to two weeks between the placing of a sales order and shipment. It is rare, however, for an unmatched bill of lading or packing slip to remain on the unmatched documents report for more than two

days. This was corroborated by examining the unmatched documents report for selected days (see W/P XX-4-2 **[not illustrated here]***) where the longest period a bill of lading or packing slip was outstanding was two days. Selected transactions on these reports were traced to underlying documents with no exceptions.*

Based on this examination of evidential matter, combined with the results of inquiry of accounts receivable and shipping personnel and corroborating observations, control risk is assessed as slightly below the maximum.

Rights and Obligations:

Control risk is assessed at the maximum.

Valuation and Allocation:

Gross Valuation of Receivables and Sales

Good user department controls in sales exist over changes to the master-price files. Inquiries of the sales manager and employees in the sales manager's office on 5/11/X5, and examination of selected "was-is" computer reports of master-price file changes (see W/P XX-4-3 **[not illustrated here]***) indicate that this aspect of valuing gross receivables is carefully reviewed. Supporting documentation for selected price changes was also examined, and no exceptions were noted.*

Invoice quantities, however, are not subject to the same control activities. Past history indicates that immaterial quantity errors do occur during heavy seasonal periods. This history appears not to have changed based upon review of correspondence with customers and responses to inquiries of accounts receivable personnel. However, no such errors were noted in the current period that approached amounts equivalent to tolerable misstatement. Also, a greater concern exists relative to receivables involving the Texas operation because of high turnover of personnel.

Based on the above tests of controls, control risk is assessed as slightly below the maximum except the Texas operation, where control risk is assessed at the maximum.

Net Valuation of Receivables

Control risk is assessed at the maximum.

Presentation and Disclosure:

Control risk is assessed at the maximum.

On 10/15/X5 inquiries about changes in internal control were made of the CFO, the DP manager, and accounts receivable personnel. No significant changes were made to the systems affecting the existence and occurrence and completeness assertions, and objective of gross valuation of sales and receivables. The gross valuation objective, however, was affected by changes in key accounting personnel. These inquiries were corroborated by inquiries made on 10/18/X5 of personnel at the California manufacturing location, by observations of employees in the performance of their duties, and by examination of selected transactions at the Texas location for the period 5/1/X5 to 9/30/X5. Based on these tests, the above control risk assessments appear to be valid for the entire year.

sdm 10/21/X5

dgw 11/20/X5

5.07

Exhibit D-1

Vinco, Inc.
Summary of Documentation Relating to Internal Control

The following examples of documentation of the understanding of internal control and control risk assessments for Vinco, Inc., would be included in the workpapers. These illustrations indicate the types of workpapers that might be prepared. Certain workpapers are listed or referred to that are not included, to indicate that related documentation would exist. Readers should assume that this documentation shows that effective internal control has been designed and placed in operation. Other methods of documenting the understanding and control risk assessments are appropriate, and the examples are not intended to be exclusive of other methods.

Exhibit No.	*Workpaper Reference*	*Exhibit Description*
D-2	C-10	Control Environment Questionnaire
	C-20	Risk Assessment Questionnaire
	C-30	Control Activities Questionnaire
	C-40	Information and Communication Questionnaire
	C-50	Monitoring Questionnaire
	C-60	Memorandum summarizing the understanding of matters that have a pervasive effect on internal control and test of controls performed while obtaining the understanding
D-3	R-10	Questionnaire Documenting the Understanding of Internal Control at the Account Balance Level
	R-20	Documentation of the Order Entry Function [not illustrated in this exhibit]
	R-30	Documentation of the Shipping Function [not illustrated in this exhibit]
	R-40	Flowchart and Questionnaire Documenting the Billing Function
	R-50	Documentation of the Cash-Receipts Function [not illustrated in this exhibit]
	R-60	Questionnaire Documenting the Collection Effort Function
D-4	G-10	Questionnaire Documenting Computer General Control Activities
D-5	Various	Summary of Additional Tests of Controls
D-6	R-1 to R-4	Summary of Risk Assessments and Audit Approach for Assertions Relating to Receivables and Revenues
D-7	R-5	Update of Risk Assessments for Receivables and Revenues

Exhibit D-2
Page 1 of 11
WP Index *C-10*

Control Environment Questionnaire

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*

Completed by: *RS* Date: *9/11/X4* Reviewed by: *PH* Date: *10/4/X4*
Completed by: ___ Date: _____ Reviewed by: ___ Date: _____
Completed by: ___ Date: _____ Reviewed by: ___ Date: _____

INTEGRITY AND ETHICAL VALUES

Management must convey the message that integrity and ethical values cannot be compromised, and employees must receive and understand that message. Management must continually demonstrate, through words and actions, a commitment to high ethical standards.

	Yes, No, N/A	Comments
Have appropriate entity policies regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct been established and are they adequately communicated? (Briefly describe the extent of such policies and practices.)	*Yes*	See workpaper C-50 [not illustrated] *for conflicts-of-interest policy.*
Does management demonstrate the appropriate "tone at the top," including explicit moral guidance about what is right or wrong?	*Yes*	*Management expects all employees to maintain high moral and ethical standards and to conduct themselves accordingly. Management is conscious of setting an example through words and actions.*

	Yes, No, N/A	Comments
Are everyday dealings with customers, suppliers, employees, and other parties based on honesty and fairness?	*Yes*	*Management maintains a high degree of integrity in its dealings, and requires its employees and agents to maintain similar levels. Departures from this requirement are dealt with quickly and severely; there are examples on file of actions taken with individuals and of general communications.*
Are appropriate remedial actions taken in response to departures from approved policies and procedures or the code of conduct, and are the actions communicated or otherwise made known throughout the entity?	*Yes*	*Departures from policies and procedures or violations of behavioral expectations are immediately dealt with in a manner commensurate with the infraction. Such remedial actions range from oral reminders of entity policy to termination.*
Does management document or investigate deviations from established controls?	*Yes*	*To our knowledge, management has not attempted to bypass controls improperly without documenting and investigating the incident. Employees are encouraged to report attempts to override controls.*

	Yes, No, N/A	Comments
Are management's performance targets realistic and how much of their compensation is based on achieving these performance targets?	*Yes*	*Executives are salaried, and usually receive an additional cash bonus approximating 20% of salary largely related to achieving specific personal or activity objectives. As a result, management's compensation is based partially on their individual and joint performance and that of the activity in which they work. Management believes that this compensation plan encourages individual initiative and teamwork. Because short-term compensation is only indirectly based on profitability, management has little incentive to manipulate the financial statements to improve operating results.*

COMMITMENT TO COMPETENCE

Management must specify the level of competence needed for particular jobs and translate the desired levels of competence into requisite knowledge and skills.

	Yes, No, N/A	Comments
Does the company maintain formal or informal job descriptions or other means of defining tasks that comprise particular jobs?	*Yes*	*The entity has formal written job descriptions for all supervisory personnel and, for jobs below the supervisory level, job duties are clearly communicated.*

	Yes, No, N/A	Comments
Does management determine to an adequate extent the knowledge and skills needed to perform particular jobs?	*Yes*	*The job descriptions specify the knowledge and skills needed, either generally or in terms of the nature and extent of education, training, and experience required. The human resources department uses these descriptions in hiring, training, and promotion decisions.*
Does evidence exist that employees have the requisite knowledge and skills to perform their jobs?	*Yes*	

BOARD OF DIRECTORS AND AUDIT COMMITTEE

The audit committee (or an equivalent function on the board of directors) should take an active role in overseeing the entity's accounting and financial reporting policies and procedures.

	Yes, No, N/A	Comments
Are there regular meetings of the board of directors (or comparable bodies) to set policies and objectives, review the entity's performance, and take appropriate action, and are minutes of such meetings prepared and signed on a timely basis?	*Yes*	
Does an audit committee exist?	*Yes*	*Consists of three independent board members.*

	Yes, No, N/A	Comments
Does the audit committee represent an informed, vigilant, and effective overseer of the financial reporting process and the company's internal controls?	*Yes*	
Has the board of directors written a charter for the audit committee, outlining its duties and responsibilities?	*No*	*Responsibilities are communicated informally.*
Does the audit committee adequately assist the board in maintaining a direct line of communication with the entity's external and internal auditors?	Yes	*Meets twice a year with us to review scope and results of work. Meets twice with internal auditors.*
Does the audit committee have adequate resources and authority to discharge its responsibilities?	*Yes*	
Is this evidenced by:		
• Regular meetings?	*Yes*	*Three times a year.*
• The appointment of qualified members?	*Yes*	
• Minutes of meetings?	*Yes*	*Copies of minutes at WP PF-12* [not illustrated].

MANAGEMENT PHILOSOPHY AND OPERATING STYLE

Management's philosophy and operating style have a significant influence on the control environment—particularly when management is dominated by one or a few individuals. Management's philosophy and operating style should create a positive atmosphere in which the risk of misstatement is reduced and that is conducive to the effective operation of internal control.

	Yes, No, N/A	Comments
Are management and operating decisions dominated by one or a few individuals?	*No*	
Does management adequately consider the potential effects of taking large or unusual business risks prior to doing so?	*Yes*	*Management is conservative in taking business risks and in selecting accounting policies.*
Are business risks adequately monitored?	*Yes*	*Although there is some pressure from shareholders to improve earnings and dividends, this has not yet affected management's position on accounting issues.*
Management's financial reporting philosophy is best characterized as (**circle** one): [Maximize income] Smooth Earning Growth Minimize Taxable Income Other _____		
Is management willing to adjust the financial statements for misstatements that approach a material amount?	*Yes*	

	Yes, No, N/A	Comments
Does management adequately consult with its auditors on accounting issues?	*Yes*	*We meet regularly with management to discuss accounting and auditing issues, and there have been no disagreements over audit adjustments or internal control recommendations.*
Has management been responsive to prior recommendations from its auditors?	*Yes*	
Is a high priority given to internal control?	*Yes*	
Has management established adequate controls over accounting estimates?	*No*	Management has not established such controls as would cause us to modify a heavily substantive approach.
Has management established a control environment that minimizes biases that may affect accounting estimates?	*Yes*	

ORGANIZATIONAL STRUCTURE

An entity's organizational structure provides the overall framework for planning, directing, and controlling operations. As organizational structures vary, an entity's controls should also vary to fit its needs and circumstances.

Briefly describe the type of entity and its organizational structure (obtain an organizational chart if it is available).

Senior management maintains a high degree of centralized control. Operating policies are determined centrally by senior management. General managers supervise local operations. (See Organization Chart at C-11.)

	Yes, No, N/A	Comments
Is the organization of the entity clearly defined in terms of lines of authority and responsibility?	*Yes*	
Are controls for authorization of transactions established at an adequately high level?	*Yes*	*Senior management group*
Are such controls adequately adhered to?	*Yes*	
Is there adequate supervision and monitoring of decentralized operations?	*Yes*	*VP-Operations works closely with general managers.*
Is the organizational structure appropriate for the size and complexity of the entity?	*Yes*	
Has management established policies for developing and modifying accounting systems and control activities?	*Yes*	*The company has established standards for development of accounting systems and control activities and their documentation.*
Is management actively involved in supervision of data processing?	*Yes*	*VP administration, controller, and DP manager regularly discuss current issues and problems. VP administration is concerned about adequate general control procedures and reliability of reports and information from DP.*
Is there sufficient communication between management of the accounting and data processing departments?	*Yes*	

	Yes, No, N/A	Comments
Are accounting and data processing centralized or decentralized?		*Centralized*
Is there sufficient supervision and monitoring of decentralized data processing and/or accounting operations?	*N/A*	

ASSIGNMENT OF AUTHORITY AND RESPONSIBILITY

The methods of assigning authority and responsibility should result in a clear understanding of reporting relationships and responsibilities established within the entity.

	Yes, No, N/A	Comments
Is there a clear assignment of responsibility and delegation of authority to deal with such matters as organizational goals and objectives, operating functions, and regulatory requirements?	*Yes*	
Are employee job responsibilities including specific duties, reporting relationships, and constraints clearly established and communicated to employees?	*Yes*	*Even though there is only partial documentation of employee job descriptions, responsibilities are clarified through regular contact.*
Has management clearly communicated the scope of authority and responsibility to data processing management?	*Yes*	*Senior management meets regularly with DP management to monitor operating problems, current system projects, and future needs.*

	Yes, No, N/A	Comments
Is there adequate computer systems documentation indicating the controls for authorizing transactions and approving systems changes?	*Yes*	
Is there adequate documentation of data processing controls?	*Yes*	

HUMAN RESOURCE POLICIES AND PRACTICES

The entity's human resource policies and practices should have a positive influence on the entity's ability to employ sufficiently competent personnel to accomplish its goals and objectives. In considering the effect on the audit, human resource policies and practices may affect the organization as a whole or particular aspects of the organization (for example, data processing) or accounting systems (for example, payroll versus purchases and acquisitions). Where appropriate, identify accounts or transactions cycles that may be specifically affected by personnel issues, such as high turnover of personnel.

	Yes, No, N/A	Comments
Do client accounting personnel appear to have the background and experience for their duties?	*Yes*	
Do client accounting personnel understand the duties and procedures applicable to their jobs?	*Yes*	
Is the turnover of accounting personnel relatively low?	*Yes*	*Normal turnover.*
Does the entity provide for adequate training of new accounting personnel?	Yes	*Mostly through close supervision where needed.*
Does the workload of accounting personnel appear to permit them to be mindful of controlling the quality of their work?	*Yes*	*Heavy management workloads are normal, but not a problem.*

	Yes, No, N/A	Comments
Does previous experience with the client indicate sufficient integrity on the part of personnel?	*Yes*	
Has management provided accounting employees with the resources necessary to discharge their assigned duties?	*Yes*	

Component Summary—Conclusions/Actions Needed

Management has a commitment to integrity, ethical behavior, and competence. The audit committee's involvement in the company's activities is generally appropriate, although it could be more involved with separate monitoring activities. Management's philosophy and operating style are appropriate, as are the organizational structure and assignment of authority and responsibility. We should be alert to the influence of shareholder pressure to improve earnings and dividends during the course of our audit. Generally, the control environment provides a strong foundation for internal control.

Exhibit D-2
Page 1 of 3
WP Index *C-20*

Risk Assessment Questionnaire

CLIENT *Vinco, Inc.* BALANCE SHEET DATE *12/31/X4*

Completed by:	*RS*	Date: *9/11/X4*	Reviewed by:	*PH*	Date: *10/4/X4*
Completed by:	___	Date: _____	Reviewed by:	___	Date: _____
Completed by:	___	Date: _____	Reviewed by:	___	Date: _____

For an entity to have effective internal control, a risk assessment process should consider external and internal events and circumstances that may occur and adversely affect its ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. Once risks are identified, management considers their significance, the likelihood of their occurrence, and how they should be managed. Management may initiate plans, programs, or actions to address specific risks or it may decide to accept a risk because of cost or other considerations.

	Yes, No, N/A	Comments
Does the entity set entitywide objectives that include broad statements of what the entity desires to achieve, and are they supported by related strategic plans and complemented on an activity-level basis?	*Yes*	*The entity has established broad objectives for what it wishes to achieve. These objectives have been integrated into the five-year business plan and include goals at an activity level to assist in the accomplishment of the objectives. These objectives are communicated to employees at an annual meeting and reinforced through internal memoranda and meetings.*

	Yes, No, N/A	Comments
Does the entity have a risk analysis process, including estimating the significance of risks, assessing the likelihood of their occurring, and determining needed actions?	*Yes*	*The business planning and budgeting process includes analyzing risks that might affect the company. Senior management also has monthly meetings to discuss recent events and how the company might be affected. At this meeting, the significant estimates included in the financial statements are discussed.*
Does the entity have mechanisms to anticipate, identify, and react to routine events or activities that affect achievement of entity or activity-level objectives?	*Yes*	*Area managers identify routine events or changing conditions that affect their responsibilities. These events and conditions are discussed at monthly meetings and action plans are formulated.*
Does the entity have mechanisms to identify and react to changes that may have a dramatic and pervasive effect on the entity?	*Yes*	*Management uses a variety of mechanisms to identify events or activities that may affect achievement of objectives. These include review of business and industry publications, participation in industry associations, and use of other professionals to acquire specific information.*

	Yes, No, N/A	Comments
Does the accounting department have a process to identify significant changes in generally accepted accounting principles as promulgated by the FASB, SEC and other relevant authoritative bodies?	*Yes*	*The accounting department reads exposure drafts and new standards to identify significant changes. In addition, the accounting department attends continuing education classes to keep up to date.*
Does the accounting department have communication channels in place to be notified of changes in the entity's business practices that may affect the method or the process of recording transactions?	*Yes*	*The accounting department participates in the meetings discussed above and also has departmental meetings.*
Does the accounting department have a process to identify significant changes in the operating environment, including regulatory changes?	*Yes*	*The accounting department participates in the meetings discussed above and also has departmental meetings.*

Component Summary—Conclusions/Actions Needed

Management has developed a strong risk assessment process for identifying and analyzing risks associated with financial reporting objectives compared to the business plan and has established appropriate mechanisms to identify risks in a timely method. Management should consider enhancing the processes relating to changing conditions related to outside sources.

Exhibit D-2
Page 1 of 2
WP Index *C-30*

Control Activities Questionnaire

Control activities encompass a wide range of policies and the related implementation procedures that help ensure that management's directives are effective in processing and preparing financial statements. They help ensure that those actions identified as necessary to address risks to achieve the entity's financial reporting objective are carried out.

	Yes, No, N/A	Comments
Does management have clear objectives in terms of budget, profit, and other financial and operating goals?	Yes	*The budgeting system is well developed, including follow-up activities. See workpaper C-30 for review of significant budget variations and discussions with management.*
Are such objectives:		
• Clearly written?	*Yes*	
• Actively communicated throughout the entity?	*Yes*	
• Actively monitored?	*Yes*	
Do the planning and reporting systems in place:		
• Adequately identify variances from planned performance?	*Yes*	
• Adequately communicate variances to the appropriate level of management?	*Yes*	

	Yes, No, N/A	Comments
Does the appropriate level of management:		
• Adequately investigate variances?	*Yes*	
• Take appropriate and timely corrective action?	*Yes*	
Has management established procedures to prevent unauthorized access to, or destruction of, documents, records, and assets?	*Yes*	
Has management established policies for controlling access to programs and data files?	*Yes*	
Does management adequately monitor such policies?	*Yes*	*Management regularly reviews compliance with these standards, including internal audit review (see G-10).*
Are amounts recorded by the accounting system periodically compared with physical assets?	*Yes*	*A physical inventory is taken at the end of each year and the internal auditors perform a fixed asset reconciliation every two years.*
Are signatures required to evidence the performance of critical control functions, such as reconciling accounts?	*Yes*	*The accounting reconciliations are signed by the person preparing the reconciliation and noted as approved by the controller.*

Component Summary—Conclusions/Actions Needed

The control activities that have a pervasive effect on internal control have been placed in operation and appropriately address risks to achieve the company's financial reporting objective.

Exhibit D-2
Page 1 of 4
WP Index *C-40*

Information and Communication Questionnaire

Information

Information is recorded, processed, summarized, and reported by information systems. Relevant information includes industry, economic, and regulatory information obtained from external sources, as well as internally generated information.

	Yes, No, N/A	Comments
Does the information system provide management with necessary reports on the entity's performance relative to established objectives, including relevant external and internal information?	*Yes*	*The entitywide strategic plan, developed by management, identifies the internally and externally generated information required to analyze and monitor the entitywide objectives.*
Is the information provided to the right people in sufficient detail and on time to enable them to carry out their responsibilities efficiently and effectively?	*Yes*	*Project groups identify information required by users to provide timely and adequate financial reporting. Information due dates have been clearly defined and agreed upon by management. Actual performance, including availability and response times, is monitored weekly and reported to the CFO.*

	Yes, No, N/A	Comments
Is the development or revision of information systems over financial reporting based on a strategic plan and interrelated with the entity's overall information systems, and is it responsive to achieving the entitywide and activity-level objectives?	*Yes*	*The strategic plan for information systems over financial reporting is updated annually in conjunction with revisions of the entity's business plan and integrated with the entity's overall information system needs.*
Does management commit the appropriate human and financial resources to develop the necessary financial reporting information systems?	*Yes*	

Communication

Communication is inherent in information processing. Communication also takes place in a broader sense, dealing with expectations and responsibilities of individuals and groups. Effective communication must occur down, across, and up an organization and with parties external to the organization.

	Yes, No, N/A	Comments
Does management communicate employees' duties and control responsibilities in an effective manner?	*Yes*	*As part of initial training, all employees are provided with information regarding their duties and how those duties impact other employees in their own and other units. Many employees are cross-trained, which further strengthens this understanding. Each employee receives an annual evaluation, during which his or her responsibilities are discussed to ensure that he or she fully understands them.*
Are communication channels established for people to report suspected improprieties?	*Yes*	*The employee handbook states that suspected violations of company policies or behavioral standards should be reported to a vice president. Such reports can be made anonymously.*

	Yes, No, N/A	Comments
Does communication flow across the organization adequately (e.g., from shipping to accounting) to enable people to discharge their responsibilities effectively?	*Yes*	*Communication between departments or units is generally good. Employees are evaluated on how well they work with other activities; also, many functions are integrated for purposes of bonus computation.*
Does management take timely and appropriate follow-up action on communications received from customers, vendors, regulators, or other external parties?	*Yes*	*Management follows up quickly on communications from outside parties that indicate that problems exist within the internal control system or that employees may have acted inappropriately.*
Is the entity subject to monitoring and compliance requirements imposed by legislative and regulatory bodies?	*No*	*There are no external influences that have a significant effect on the company's internal control structure.*
Do other parties outside the entity review and follow up on the entity's actions (such as an active review of bank loan agreements)?	*No*	

Component Summary—Conclusions/Actions Needed

Information and communication controls have been placed in operation. Management should consider encouraging managers to solicit and consider constructive suggestions from personnel to identify potential ways to improve the efficient use of information systems and communication.

Exhibit D-2
Page 1 of 3
WP Index *C-50*

Monitoring Questionnaire

Ongoing Monitoring

Ongoing monitoring occurs in the ordinary course of operations, and includes regular management and supervisory activities and other actions personnel take in performing their duties that assess the quality of internal control performance.

	Yes, No, N/A	Comments
Is operating information used to manage operations integrated or reconciled with data generated by the financial reporting system?	*Yes*	*The shipping program is integrated with the billing program and shipping and receiving information is reconciled to the number of items processed or received.*
How many customer complaints are received about billings? Are the complaints investigated for their underlying causes and any internal control deficiencies corrected?	*Yes*	*Customer complaints are received on approximately 1 out of every 3,000 invoices processed. Complaints are generally related to wine bottles breaking in transit. The company is currently exploring alternative packaging to reduce breakage.*
Are internal control recommendations made by internal and external auditors implemented?	*Yes*	*Recommendations that the board and management feel are cost beneficial are implemented.*
Does management receive feedback from training seminars, planning sessions, and other meetings on whether controls operate effectively?	*Yes*	

	Yes, No, N/A	Comments
Does the management take adequate and timely actions to correct conditions reported by the internal audit function?	*Yes*	

Separate Evaluations

It is useful to take a fresh look at internal control from time to time, focusing directly on system effectiveness. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and ongoing monitoring procedures.

	Yes, No, N/A	Comments
Does the entity conduct separate evaluations of internal control? (What is the scope and frequency?)	*Yes*	*The board focuses on the control environment and monitoring functions, obtaining input from the CFO and the auditors.*
Does the evaluation process appropriate fulfill its purpose?	*Yes*	*The evaluation process is informal. It includes steps for understanding and analyzing key controls in place.*
Is the evaluation methodology logical or random based on the specific concerns?		*The evaluations are informal and random depending on the specific concerns to be addressed.*
Are the evaluations documented?	*Yes*	*Limited documentation exists in meeting minutes of the board.*
Does the entity have an internal audit function?	*Yes*	

	Yes, No, N/A	Comments
Does the work of the internal auditor reduce the risk of material misstatement in the financial statements (or does it focus primarily on operational auditing)?	*Yes*	*See workpaper C-40 for review of internal audit workpapers.*
Is the internal audit function independent of the activities audited?	*Yes*	*IA manager reports to president and meets regularly with the audit committee.*
Does the internal audit function report to the audit committee or other independent body?	*Yes*	*Twice annually.*
Is the internal audit function adequately staffed in terms of the number of employees and their training and experience?	*Yes*	
Do internal auditors document the planning and execution of their work by such means as audit programs and workpapers?	*Yes*	*They have good standards for documenting and reporting the results of their work.*
Do internal auditors render written reports on their findings and conclusions?	*Yes*	

Component Summary—Conclusions/Actions Needed

Ongoing monitoring procedures are adequate. The process for separate evaluations of internal control could be formalized and documented. Policies for reporting deficiencies appear to be appropriate.

Exhibit D-2
WP Index *C-60*

Vinco, Inc.

Summary of Matters That Have a Pervasive Effect on Internal Control and Tests of Controls Performed While Obtaining the Understanding

SUMMARY OF SIGNIFICANT CONTROLS AND EFFECT ON AUDIT STRATEGY

Briefly discuss the significant elements of internal control that have a pervasive effect on the risk of material misstatement in the financial statements.

The matters that have a pervasive effect on internal control reflect an excellent atmosphere conducive to the effective operation of internal control. There are strong direct control methods, including responsibility reporting and internal audits.

Thus, the risk of material misstatement is reduced in many elements of the financial statements, and this will be considered in our control risk assessments. In addition, the audit strategy will not require extensive testing at all locations, and some work can be performed prior to the balance-sheet date.

SUMMARY OF TESTS OF CONTROLS

Briefly summarize the tests performed (if any) to test the operating effectiveness of significant controls.

The understanding of the matters that have a pervasive effect on internal control was based on prior experience with the entity, regular meetings with management since the last audit, and observation and inquiry of management during audit planning (9/8/X4 to 9/11/X4).

The influence of management's philosophy and operating style, the audit committee, methods of assigning authority and responsibility, risk assessment, information and communication, monitoring, and a positive attitude toward control consciousness were tested through regular meetings in the current year to discuss accounting issues (see Workpaper C-8 [not illustrated]).

Other procedures that influenced this overall assessment of effective internal control that has a pervasive influence on financial reporting include:

Tests of management's review of budget variations	*C-30*
Tests of internal audit	*C-40*

Exhibit D-3
WP Index *R-10*

Understanding of Internal Control at the Account Balance Level

CLIENT	*Vinco, Inc.*	BALANCE SHEET DATE	*12/31/X4*
Completed by:	*Roger Smith*	Date:	*9/13/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/1/X4*

These detailed questionnaires may be used by the auditor in obtaining an understanding of controls at the account balance level necessary to support a control risk assessment below the maximum.

IDENTIFY CYCLES (AND THE RELATED FUNCTIONS) FOR WHICH A CONTROL RISK ASSESSMENT SIGNIFICANTLY BELOW THE MAXIMUM IS DESIRED:

Revenue Cycle (includes receivables and revenues): this cycle includes the following functions: order entry, shipping, billing, cash receipts, and collection efforts.

IDENTIFY RELATED ASSERTIONS FOR WHICH A CONTROL RISK ASSESSMENT BELOW THE MAXIMUM IS DESIRED:

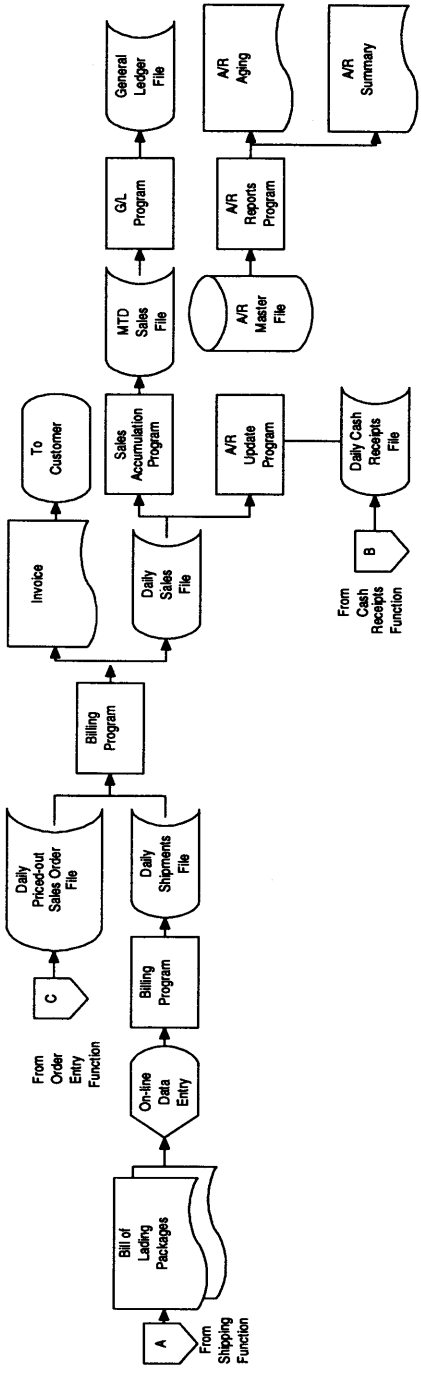
Existence, occurrence, completeness, and the objective that receivables are stated at their gross value (relates to the valuation assertion). For the realizable value objective of the valuation assertion, the planned control risk assessment is moderate (see documentation at R-60 and R-40).

FOR EACH FUNCTION COMPLETE THE APPROPRIATE DOCUMENTATION:

Order entry: *see R-20*	[not illustrated in this exhibit]
Shipping: *see R-30*	[not illustrated in this exhibit]
Billing: *see R-40*	[illustrated in this exhibit]
Cash receipts: *see R-50*	[not illustrated in this exhibit]
Collection efforts: *see R-60*	[illustrated in this exhibit]

Exhibit D-3
Page 1 of 6
WP Index *R-40*

VINCO, INC.
ACCOUNTING SYSTEM—BILLING FUNCTION



Control Activities Questionnaire—Billing Function

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*
Completed by: *Roger Smith* Date: *9/13/X4*
Reviewed by: *Paul Harmon* Date: *10/1/X4*

Objective:

All shipments made should be billed and recorded in the general ledger and subsidiary records.

	Yes, No, N/A	Comments
Are prenumbered shipping documents used and is the sequence accounted for?	*Yes*	*(a)*
Are control totals of shipments made reconciled with totals of sales invoices processed?	*Yes*	*(b)*
Are input validation controls used?	*Yes*	*(c)*
Are sales invoices matched with shipping documents (or based on a file of shipments made)?	*Yes*	*(d)*
Are control totals of sales invoices processed reconciled with sales amounts posted to the accounts receivable master file?	*Yes*	*(e)*

	Yes, No, N/A	Comments
Are control totals of sales invoices processed reconciled with sales amounts posted to the general ledger?	*Yes*	*(f)*
Is the receivables account in the general ledger reconciled with the accounts receivable master file on a regular basis?	*Yes*	*(g)*

(a) The Order Entry Program issues sequentially numbered bills of lading for each day's scheduled shipments based on the Daily Priced-out Sales Order File. The sequence is subsequently accounted for: see (b) for details.

(b) Upon receiving bill of lading packages from the warehouses, the accounting clerk uses an adding machine to prepare batch totals of quantities shipped. She then enters on the terminal the batch totals and data from the individual bills of lading. The Billing Program prepares its own batch totals from the individual bills of lading and produces a report listing any differences from the totals entered by the accounting clerk. The Billing Program also checks the numeric sequence of bills of lading and reports any breaks in the sequence. Differences are investigated by a second clerk and resolved before further processing.

(c) The Billing Program includes programmed application control activities such as (1) completeness controls to ascertain that bill of lading input fields (such as customer number and quantity shipped) contain data, (2) a check of digits to ascertain that customer and product numbers are valid, and (3) numeric and range controls to determine that customer number, product number, and quantity shipped fields contain only numeric characters that are within prescribed ranges. Input that violates any of these controls results in an error message and must be corrected before further processing.

(d) The Billing Program prepares the Daily Shipments File based on shipping data input by the accounting clerk. The program compares the Daily Shipments File with the Daily Priced-out Sales Order File and produces a report listing differences between quantities actually shipped and quantities scheduled for shipment. Differences are investigated by the accounting clerk, and corrections are entered on the terminal. The Billing Program then produces invoices and the Daily Sales File.

(e) The A/R Update Program processes the Daily Sales File and the Daily Cash Receipts File to update the A/R Master File. The program takes daily sales and cash receipts totals and uses these to reconcile the accounts receivable subledger balance with the prior day's balance.

(f) The Sales Accumulation Program processes the Daily Sales File to update the Month to Date (MTD) Sales File. At month end, the G/L Program processes the MTD Sales File to update the accounts in the General Ledger File. Each day, the program reconciles the total added to the MTD Sales File with the daily sales invoice listing.

(g) An accounts receivable clerk reconciles the A/R Master File with the G/L control accounts monthly.

Control Activities Questionnaire
Billing Function

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*
Completed by: *Roger Smith* Date: *9/13/X4*
Reviewed by: *Paul Harmon* Date: *10/1/X4*

Objective:

Billings should be based on shipments made, should be accurately computed, and should be accurately and promptly summarized and recorded in the correct accounts in the general ledger and subsidiary records.

	Yes, No, N/A	Comments
Are quantities billed compared with shipping documentation?	*Yes*	*(a)*
Are control totals of shipments made reconciled with totals of sales invoices processed?	*Yes*	*(b)*
Are invoices calculated using an approved price list or master-price file?	*Yes*	*(c)*
Is the mathematical accuracy of invoice calculations periodically rechecked?	*No*	*(d)*
Is the mathematical accuracy of report totals periodically rechecked?	*No*	*(e)*

(a) The Billing Program prepares the Daily Shipments File based on shipping data input by the accounting clerk. The program compares the Daily Shipments File with the Daily Priced-out Sales Order File and produces a report listing differences between quantities actually shipped and quantities scheduled for shipment. Differences are investigated by the accounting clerk, and corrections are entered on the terminal. The Billing Program then produces invoices and the Daily Sales File.

(b) Upon receiving bill of lading packages from the warehouses, the accounting clerk uses an adding machine to prepare hash totals of bill of lading numbers and batch totals of quantities shipped. She then enters on the terminal the hash and batch amount of the individual bills of lading. The Billing Program prepares its own hash and batch totals from the individual bills of lading and produces a report listing any differences from the totals entered by the accounting clerk. Differences are investigated by a second clerk and resolved before further processing.

(c) Invoice amounts are calculated by the Order Entry Program (see R-20 **[not illustrated in this exhibit]***) using the approved master-price file. A tape-librarian management system is used to provide assurance that the correct master-price file is used.*

(d) The entity relies on the Order Entry Program for accuracy of invoice calculations and does not recheck calculations.

(e) The entity relies on the Billing Program and other programs to produce accurate report totals and does not recheck these totals.

Exhibit D-3
WP Index *R-60*

Control Activities Questionnaire
Collection Effort Function

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*
Completed by: *Roger Smith* Date: *9/13/X4*
Reviewed by: *Paul Harmon* Date: *10/1/X4*

Objective:

Accounts receivable should be recorded at net realizable value.

	Yes, No, N/A	Comments
Does the entity perform adequate follow-up procedures for collection of past-due receivables?	*Yes*	*(a)*
Are write-offs approved by management and processed on a timely basis?	*Yes*	*(b)*
Does the entity regularly monitor the adequacy of its reserve for uncollectible accounts and establish appropriate provisions?	*Yes*	*(c)*

(a) Letters are mailed to the customer at various stages between 30 and 90 days past due. After accounts are 90 days past due, they are turned over to a collection agency (based on region of the country). No further credit is allowed. The controller maintains regular contact with the collection agencies.

(b) After accounts reach 180 days past due, they are written off, unless collection is imminent (according to collection agency). Write-offs are approved by the controller.

(c) Each month, management adjusts the reserve after performing an in-depth analysis of past-due accounts and estimates the uncollectible portions based on knowledge of each customer's payment history and financial condition. The company relies on the computer system to produce accurate aging information and performs only a reasonableness review. Each quarter, the formula is adjusted if necessary.

Exhibit D-4
Page 1 of 10
WP Index *G-10*

Computer General Control Activities Questionnaire

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*
Completed by: *Roger Smith* Date: *9/13/X4*
Reviewed by: *Paul Harmon* Date: *10/1/X4*

"Computer general control activities" are intended to ensure that application systems, including programmed control activities, operate consistently and properly, and that data and programs are adequately secured.

This questionnaire may be used to document the audit team's understanding of computer general control activities. It includes two parts:

I. Background information about the computer processing function

II. Understanding of computer general control activities

I. BACKGROUND INFORMATION

This section may be used to document relevant background information about the computer function to provide a proper perspective for the review of computer general control activities.

A. HARDWARE AND SYSTEMS SOFTWARE

List the significant hardware and systems, including separate locations (if any):

—IBM 4381-2 computer

—DOS/VS operating system

—IBM 3270 CRTs in each warehouse

—IBM utilities software

—Databases (receivables, payables, inventory)

—Security software (GASP)

—Librarian software (GULP)

B. APPLICATIONS

List the major computer-based application systems:

—Revenue cycle, including cash receipts and inventory update (on-line, batch update)

—Payroll (batch)

—Payables/disbursements, including inventory update (on-line, batch update)

C. COMPUTER ORGANIZATION AND MANAGEMENT

Consider the organization and management of the computer function using the following questions:

	Yes, No, N/A
Does the person responsible for the day-to-day activities (e.g., the systems manager) report to a sufficiently high level in the organization to heighten the visibility of computer processing from a management perspective?	*Yes*
Is the computer systems department well structured with defined communication and reporting channels?	*Yes*
Is there a long-range computer systems plan that is based on and supports the strategic business plan?	*Yes*
Does a computer systems steering committee (or some other management group) regularly review computer systems department projects, establish priorities, and monitor progress to ensure that they are in line with the entity's objectives?	*Yes*
Are there appropriate personnel policies (e.g., hiring, promotion, retention, vacation, etc.)?	*Yes*

	Yes, No, N/A
Do computer systems personnel have no duties in other departments and have no access to, or responsibility for, the disposition of company assets or the accounting distribution thereof?	*Yes*
Is there adequate segregation of duties between operations, system programming, application programming, and data control?	*Yes*

[Ed. Note: This listing is not necessarily all-inclusive.]

Comments:

See organizational chart G-10 (in this exhibit). See minutes of computer systems steering committee at G-20 **[not illustrated in this exhibit]**. *There are several significant applications with complex processing (e.g., revenue cycle, payables / disbursements cycle) for which it may be appropriate to obtain an additional understanding of the accounting system and control activities. Therefore, it is also appropriate to obtain an understanding of computer general control activities.*

II. COMPUTER GENERAL CONTROL ACTIVITIES

This section may be used to document the understanding of computer general control activities by addressing the following objectives:

A. Application Development

The company should maintain effective control over authorized application development to ensure that new application programs are suitably designed, tested, documented, and implemented.

B. Application Maintenance

The company should maintain effective control over authorized application and systems maintenance to ensure that modifications to application programs are suitably designed, appropriately documented, tested, and implemented.

C. Access to System Resources

The company should maintain effective control over access to, and use of, system resources (application and system programs, key data and program files, processing time, etc.) to ensure that only authorized changes are made to application programs or data files supporting the financial statements.

D. Computer Operations

The company should maintain effective control over computer operations to ensure that application programs are used properly and that only the proper data files are used during processing.

Space is also included to summarize (1) the most significant policies and procedures and their effect on the audit strategy and (2) the tests of controls (if any) performed (or to be performed) to test the operating effectiveness of these policies and procedures.

A. Application Development

[not illustrated in this exhibit]

B. Application Maintenance

Objective:

The company should maintain effective control over application and systems maintenance to ensure that new application programs and modifications to application programs are approved, suitably designed, and documented, tested, and completely and accurately implemented.

	Yes, No, N/A	Comments
Does the company have documented policies and procedures for making modifications to application programs?	*Yes*	*(a)*
Does user management determine and/or approve the functional requirements of all program changes?	*Yes*	*(b)*
Is program documentation updated for all maintenance performed?	*Yes*	
Are modified systems adequately tested to ensure proper operation of programmed procedures?	*Yes*	*(c)*
Are the results of maintenance and testing approved by computer systems management and application users before conversion?	*Yes*	*(c)*
Is the transfer of programs to production status controlled to ensure that only approved programs are used for processing the company's transactions?	*Yes*	*(d)*

(a) The company has a standards manual for all systems development and modification projects.

(b) Written approval is required by the data processing manager and the appropriate user department manager for all program changes.

(c) Appropriate testing is performed for all program changes, and the results are approved by the appropriate department manager.

(d) A General Utility Librarian Package (GULP) and program transfer log are used to control transfer of programs from the production library to the development library at the start of the change process and back to the production library after the change is completed. GULP also prints transfer logs of all transfers to and from development and production libraries and prepares logs that indicate when programs were compiled.

C. Access to System Resources

Objective:
The company should maintain effective control over access to, and use of, system resources (application and system programs, key data and program files, processing time, etc.) to ensure that only authorized changes are made in application programs or data files supporting the financial statements.

	Yes, No, N/A	Comments
Does the company have documented policies and procedures for computer security?	*No*	*(a)*
Are there adequate physical controls to restrict access to the computer room to authorized individuals?	*Yes*	*(b)*
Are programmers restricted from access to production programs, job control language, and live data files?	*Yes*	*(c)*
Have test library procedures been established such that programming is not performed using live data files and application programs?	*Yes*	*(d)*
Are operators restricted from access to source programs?	*Yes*	*(e)*

	Yes, No, N/A	Comments
Are utility programs that can alter data without any audit trail adequately controlled and their use logged for subsequent management review?	*Yes*	*(f)*
Is access to application processing parameter or table files limited to authorized personnel, and are changes to such files adequately reviewed?	*Yes*	*(g)*
Is there terminal access control software that restricts who can access the system, what programs can be used, and what files the user and/or program can access?	*Yes*	*(h)*
Does terminal access control rely on passwords or other identification/validation processes to control access to the system?	*Yes*	*(h)*
Are passwords administered in a way that ensures that they are confidential, unique, and updated to reflect needed changes on a timely basis?	*Yes*	*(i)*
Are all significant events (security violations, use of critical software, or system commands, etc.) logged and promptly investigated by appropriate management personnel?	*Yes*	*(j)*

(a) The company does not have a written security policy. However, strong security measures have been established. See below.

(b) Physical access to the computer room is restricted by a combination lock on the door. Visitors sign a log and are accompanied by authorized personnel.

(c) Programmers are segregated from the computer room. A General Utility Librarian Package (GULP) limits the ability to make production library changes to certain computer management personnel. In addition, a Global Access Security Package (GASP) restricts access to GULP and data files.

(d) GULP prevents access to live programs by programmers. Test data files are used for testing program changes, and GASP restricts access to live data files.

(e) All source programs are maintained in a separate library under the control of GULP and cannot be accessed by operators.

(f) Utility programs are under the control of GASP, and access is strictly controlled through appropriate passwords. Utility use is logged by GASP, and the reports of use are reviewed by the data processing manager.

(g) Access to parameter or table files is controlled by special supervisory passwords within GASP. Changes to these files are printed and routed to the appropriate accounting department for review.

(h) The company uses GASP to restrict access to the system to personnel and programs with valid passwords. Each password, in turn, allows access to selected programs only, based on the user profile. Data files can be accessed only with access to the related production program. The access control package provides further protection of unattended terminals by logging off the terminal after ten minutes of inactivity.

(i) A policy statement issued by the security manager precludes terminal users from distributing their passwords to others, taping passwords on terminals, or leaving a terminal without logging off. All new user passwords and changes are approved by the security manager.

(j) Attempts to access the system, programs, or data files by unauthorized persons are logged by GASP. These logs are sent to the security manager, who performs an appropriate investigation.

D. COMPUTER OPERATIONS

[not illustrated in this exhibit]

SUMMARY OF SIGNIFICANT POLICIES AND PROCEDURES AND EFFECT ON AUDIT STRATEGY

Briefly discuss the most significant policies and procedures and (1) their impact on the effectiveness of application controls and (2) their effect on audit strategy:

There are strong controls over program development and changes and over access to programs and data. These controls provide reasonable assurance that application systems operate consistently and properly. Therefore, the audit strategy is one of testing general control activities and related application control activities to obtain a low control risk assessment.

VINCO, INC.
DATA PROCESSING ORGANIZATION CHART

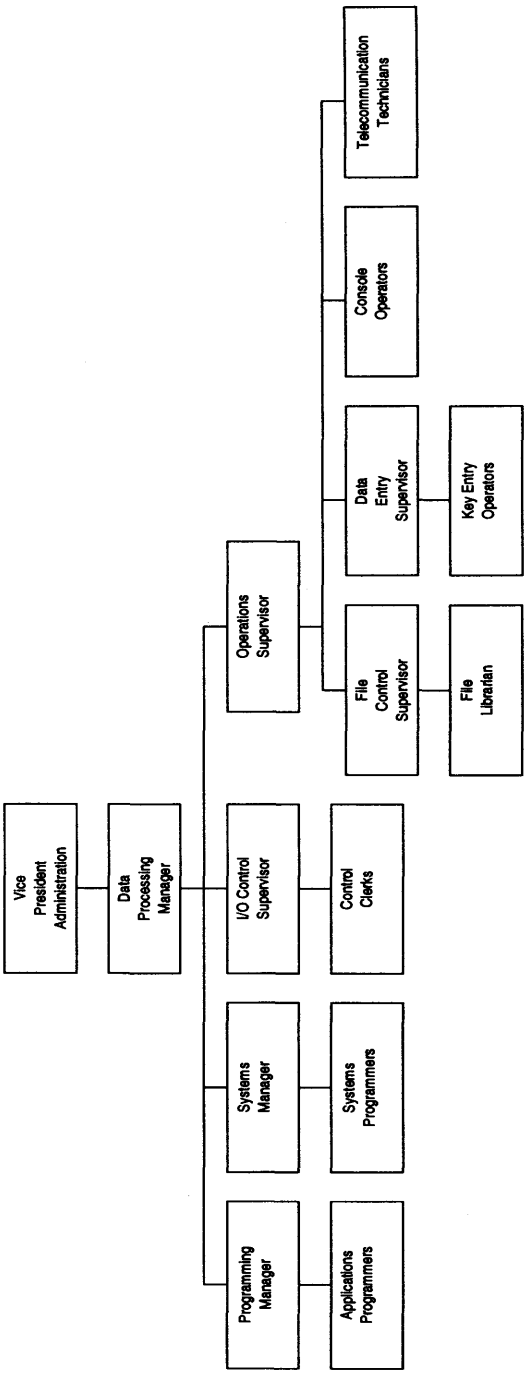


Exhibit D-5

Vinco, Inc.
Summary of Additional Tests of Controls

Exhibit D-6 presents a summary of the auditor's approach for certain assertions related to accounts receivable. The following are examples of documentation of tests of controls for Vinco that would be included in the workpapers. These tests are in addition to the procedures performed to obtain the understanding, which also provide evidence of operating effectiveness and, therefore, serve as tests of controls (see documentation at C-10, G-10, and R-20 through R-60).

These illustrations indicate the types of workpapers that might be prepared. Certain workpapers that are not included are listed or referred to only to indicate that related documentation would exist. Readers should assume that tests of controls on those workpapers disclose no exceptions. Other methods of documenting tests of controls might also be appropriate, and these examples are not intended to be exclusive of other methods.

Workpaper Reference	Exhibit Description
C-30	Discussion of significant budget variations with management
C-40	Review of internal audit work
	Tests of internal control at an account balance level for order entry and shipping functions [not illustrated in this exhibit]
R-70	—Coopersburg warehouse
R-80	—Los Angeles warehouse
R-90	—Dallas warehouse
R-100	Tests of internal control at an account balance level for the billing function
R-110	Tests of internal control at an account balance level for cash receipts function [not illustrated in this exhibit]
G-30	Tests of controls over systems development and modifications
G-40	Tests of controls over computer access control activities

Exhibit D-5
WP Index *C-30*

Vinco, Inc.
Discussion of Significant Budget Variations with Management

Completed by: *Roger Smith* Date: *9/19/X4*
Reviewed by: *Paul Harmon* Date: *10/1/X4*

In performing the procedures to obtain the understanding of the client's budgetary procedures (see C-10 **[illustrated in exhibit D-2]***, some evidence of operating effectiveness was obtained. The following tests of controls were performed to obtain further evidence about operating effectiveness.*

On September 12, I met with the controller to discuss the company's procedures for reporting and investigating variations from budget. See C-31 for a copy of the company procedures manual dealing with this matter **[not illustrated in this exhibit]**. *The key procedures are as follows: The general ledger system produces monthly comparisons of budget with actual performance for each operating location and department managers are sent instructions for explaining significant or unusual variations. Explanations are due within one week and are used by the controller to develop a monthly performance report. This performance report is discussed at the monthly management meeting (including senior management, general managers, and department managers) and is updated for revised explanations and follow-up action.*

I obtained the performance reports for two months—March and May (see C-32 and C-33 **[not illustrated in this exhibit]***)—and inspected evidence of appropriate identification of significant or unusual variations, and of whether complete and satisfactory explanations had been received.*

In addition, on September 14, I met with the general manager of the Chicago division. His explanation of variations to be investigated was consistent with company policy. For the months of March and May, I inspected management's notations and reviewed the appropriateness of follow-up procedures, noting that this monitoring activity appeared to be operating effectively.

Exhibit D-5
WP Index *C-40*

Vinco, Inc.
Review of Internal Audit Work

Completed by:	*Roger Smith*	Date:	*9/19/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/1/X4*

Assessing Competence and Objectivity of the Internal Audit Department

In planning our audit, we assessed the competence and objectivity of the internal audit department. This assessment is documented elsewhere in the working papers.

Effect of the Internal Auditors' Work on Understanding Internal Control

During the year, internal audit performed an audit of the computer operations system as discussed in the Computer General Control Procedures Questionnaire at WP Index G-10. We considered the result of procedures performed by the internal auditors on computer operations policies and procedures to obtain information about whether policies and procedures had been placed in operation. The information obtained from this review assisted us in identifying tests of controls to perform in computer operations to obtain a low control risk assessment.

Internal audit schedules the areas to be audited on a rotational basis. There were no audits relating to receivables or sales in 19X4, although these had been done in 19X3.

Exhibit D-5
Page 1 of 2
WP Index *R-100*

Vinco, Inc.
Tests of Internal Control at an Account Balance Level for Billing Function

Completed by:	*Brenda Jones*	Date:	*9/19/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/1/X4*

On July 12, I met with Colleen Johnson, accounting clerk, to discuss control activities in the billing function. These activities include—

1. *Reconciling control totals of shipments made and processed.*
2. *Investigating quantity differences between shipments made and shipments scheduled.*

Upon receiving bill of lading packages from the warehouses, Johnson prepares batch control totals (on adding machine tapes) and then enters the data on the terminal. The Billing Program produces a report listing the control totals for each batch. A second clerk, Mary Olson, reconciles this report with the adding machine tapes. Differences are rare and generally result from keypunch errors. I reviewed a sample of the reconciliations for selected days during the year to date.

After these differences are reconciled, the Billing Program prepares the Daily Shipments File. The Program also compares this file with the Daily Priced-out Sales Order File and produces a report listing differences between quantities shipped and quantities scheduled for shipment. Johnson investigates differences on this report. Differences are rare and generally result from out-of-stock conditions. This was corroborated by inquiries of shipping personnel at the Chicago operation, who confirmed that about 95 percent of the time they were able to completely fill orders. Johnson enters the appropriate corrections on the terminal, which results in bringing the Daily Shipments File and Daily Priced-out Sales Order File into agreement.

I reviewed a sample of the reports for several days during the year, noting proper resolution of differences.

I also met with the controller to discuss the procedures for approving changes to the master accounts receivable files. All changes to the master accounts receivable files are supported by source documents. For example, new customers or revised credit limits are supported by documents prepared by the accounting department. New products and revised prices are supported by documentation received from the VP of operations. The controller reviews this documentation and approves the changes. After the changes are processed, the controller receives a "was-is" report. He compares this report to the input to determine that all authorized changes were made. I reviewed a sample of the "was-is" reports for selected days during the year, noting that all changes agreed with the supporting detail.

Exhibit D-5
Page 1 of 3
WP Index *G-30*

Vinco, Inc.
Test of Controls Over Systems Development and Modifications

Completed by: *Teddy Techo* Date: *9/11/X4*
Reviewed by: *Lefty Lambert* Date: *9/20/X4*

AUDIT OBJECTIVE OVER SYSTEMS DEVELOPMENT AND PROGRAM CHANGE:

1. *Newly developed programs and modified programs should be authorized, tested, documented, and operated according to user specifications.*

PROCEDURES TO TEST OBJECTIVE OVER SYSTEMS DEVELOPMENT AND PROGRAM CHANGE:

The client has a standards manual for all systems development and modifications. No changes have been made to this manual since our last audit.

There were no new applications implemented during the year to date. However, discussions with the DP manager, Sally Smooth, revealed several significant modifications to the revenue system and the payables/disbursements system programs.

See also W/P G-40 for tests of controls over access to programs through the general utility librarian package.

The following procedures were performed to determine the effectiveness of control activities over program changes:

1. *Discussed with the DP manager that she does, in fact, ensure that there is adherence to the established programming standards. After all new and changed programs are developed, a quality assurance procedure is used whereby the software code written by the programmer is evaluated for consistency with programming standards. Smooth showed me a copy of the report that she uses to evaluate adherence to the standards.*

2. *Examined the program change logs generated by the general utility librarian package to determine what changes were made and by whom. (A sample of program change logs of systems other than revenue and payables / disbursements was examined to ascertain that only changes had been made to those systems mentioned by Smooth.) The global access security package (GASP) ensures that only programs authorized by Smooth and subject to the administrative procedures of GULP can be entered into production libraries. Although there are certain privileged users (e.g., systems programmers) who can circumvent GULP and make a production library change, GASP reports all such violations in a special report that is reviewed daily by Smooth.*
3. *Made inquiries related to the risk of program changes that could be made to circumvent the administrative controls of GULP. Determined through inquiry that only changes initiated through GULP could be placed in production, with the exception of immediate fixes made in crisis situations, which must be approved by Smooth, and that all changes are logged.*

For selected changes to the programs in the revenue and payables / disbursements systems, I performed the following procedures:

1. *Examined written approvals by the appropriate department manager and the DP manager for the changes in the revenue system and the payables / disbursements system programs.*
2. *Examined the program maintenance reports and logs of the program development manager to determine if the changes had been assigned and progress reports submitted in accordance with Vinco's standards.*

3. *Reviewed the final revised program documentation to determine if it complied with Vinco's standards.*
4. *Reviewed the acceptance test results to determine if they contained the user department manager's acceptance sign-on as required by Vinco's standards.*
5. *Examined the GULP TRLOG (program transfer log) reports to determine whether appropriate reviews were made regarding source programs transferred from the production library to the development library at the start of the change process and that the completed changed source programs were transferred to the production library when the changes had been completed.*
6. *Examined the GULP CLOG (compile log) to determine if the required review was performed regarding whether the accepted source programs had been properly compiled and placed in the production library in accordance with Vinco's standards.*
7. *Interviewed user managers to determine if they had approved the changes in their system programs, had signed off on final acceptance, and were satisfied with the processing of the accounting data after the changes.*

All tests of controls indicated that the changes are made in accordance with Vinco's standard policies and procedures, except for two changes considered by Vinco to be minor modifications not susceptible to high risk and, therefore, not subject to normal acceptance testing. I have reviewed these two changes in the programs and concluded that these programs do not have a significant effect on internal control, and therefore we have not applied further procedures.

Exhibit D-5
Page 1 of 5
WP Index *G-40*

Vinco, Inc.
Test of Controls Over Computer Access Control Activities

Completed by: *Teddy Techo* Date: *9/11/X4*
Reviewed by: *Lefty Lambert* Date: *9/20/X4*

AUDIT OBJECTIVE OVER COMPUTER ACCESS:

1. Physical Access: Computer hardware, software, and documentation should be protected from unauthorized personnel.
2. Program Access: Application programs that process accounting data should be protected from unauthorized changes.
3. Execution of Programs: Operating application programs should be available only to personnel with no conflicting duties.
4. Data Access: Accounting data should be processed and changed only by appropriate application programs.

SUMMARY OF WORKPAPERS RELATING TO COMPUTER ACCESS OBJECTIVES:

Objective 1—Physical Access: See G-40 p.2

Physical access controls found generally to be good.

Objective 2—Program Access: See G-40 p.3

Vinco utilizes a computer librarian package (GULP) licensed by a reputable vendor to maintain control over production and development programs. My tests found that the librarian package was properly installed, integrated with the global access security package (GASP), and maintained by Vinco personnel. Execution of production programs is also subject to GASP as discussed under objective 3 (following).

Objective 3—Execution of Programs: See G-40 pp.3-4

Vinco utilizes a global access security package licensed by a reputable vendor. My tests found that this package was properly installed and maintained by Vinco personnel.

Objective 4—Data Access: See G-40 pp.4-5

Vinco uses procedures to ensure that production runs are authorized to process against accounting data and that utilities that access data are secure and utilized only when authorized.

Policies Pervasive to Access Objectives:

Vinco does not have a formalized security policy, but the communication of security policies and procedures provides an acceptable environment given the centralized nature of security administration. I verified via the INSTALLATION command of GASP that Ralph Footlocker, Vinco's security manager, is the only individual with "security" privilege, which indicated that all new user IDs and changes to access rules must go through Footlocker. Although Footlocker has several responsibilities outside of the security area, he appears to have adequate time to devote to his security responsibilities.

Objective 1—Physical Access:

On July 10, I toured the data processing department to observe and make inquiries about physical access control. The following points were noted:

1. *Physical access to the computer room is restricted by a combination lock on the door. Visitors sign a log and are accompanied by authorized personnel.*
2. *Programmers are segregated from the computer room and do not have access to production programs or data files.*
3. *There are no dial-in lines.*

4. *A policy statement issued by the security manager precludes terminal users from distributing their passwords to others, taping passwords on terminals, or leaving a terminal without logging off. The GASP system provides further protection of unattended terminals by logging the terminal off after ten minutes of inactivity (verified by reviewing the most recent GASP "Installation" report). The security manager, Footlocker, takes disciplinary action as needed.*

Objective 2—Program Access:

Administration: I interviewed Vinco's programming manager (Billy Bob Johnson) and established that the general utility librarian package that had been in use when we completed last year's audit was still in use with no modifications. The access rules via GASP preclude any production library "write" access to anyone other than the programming manager, except for certain privileged users. Johnson made available the GULP librarian administration reports generated since the beginning of the year. Selected reports were scanned for apparent completeness and appropriate actions.

See also W/P G-30 for tests of controls over changes made to programs in the revenue and payables/disbursements systems and GULP reports examined as part of these changes.

Objective 3—Execution of Programs:

Administration: I interviewed Ralph Footlocker and established that the GASP that had been in use when we completed last year's audit was still in use with no modifications. The revenue, payroll, and disbursements/accounts payable systems are all subject to the "full implementation" mode of GASP. He reviews all security violations, as was evident from the violation logs for the last several days on his desk, which all indicated the follow-up action that he had taken on each violation.

User's Privileges: Footlocker is the only person with GASP authority to change user profiles. He has no incompatible duties. Changes in user's privileges are approved in writing by operational department heads. I inspected the User Attribute Reports (UAR) and the Set Attribute Reports (SAR) generated by GASP for the year to date. The written authorizations for 50 changes were traced to the SAR and the UAR, and no exceptions were noted. (See W/P G-40-1 **[not included as part of this illustration]**.

In addition, I examined a special run of the GASP administration functions to provide the AUDIT report for the month of July and LISTUSER report for the current date. The AUDIT report, periodically used by Footlocker, provides a list of changes to user profiles. The LISTUSER report provides a list of all users and their privileges. Footlocker compared his list to last year's LISTUSER report and all changes of users with the highest privileges were checked. All users with high access privileges seem appropriate given their job functions. (See W/P G-40-3 **[not included as part of this illustration]**.

As usual, with our audit of Vinco we requested that user profiles be established for our audit use in the preaudit meeting on 9/8/X4. We have been using our audit IDs and passwords since that time without problems. On 9/10/X4, with the knowledge of Footlocker, I tried to obtain access to programs that were not part of our profile and obtain access with an improper password without success. My unauthorized attempts were properly recorded on the LOGAC report (see below).

Detective Controls: Footlocker made available the LOGAC (logged accesses) reports generated by GASP for the most recent weekly period (these machine-readable reports are purged weekly). The LOGAC report is produced once a week and immediately whenever an unauthorized access is attempted. Footlocker reviews the weekly reports to determine if accesses are appropriate with known user profiles. Unauthorized access reports are investigated immediately. I noted his initials on the weekly reports indicating his review and several notes on some reports noting follow-up on unusual accesses. My attempt at unauthorized access on 7/15/X4 was immediately reported to Footlocker on a special GASP LOGAC report.

Objective 4—Data Access:

I identified ten datasets that are part of the systems of financial audit interest. We obtained the GASP rulesets for these subsets and determined in each case that only the related production programs could access those datasets with "write" access, with some exceptions. I followed up on the exceptions and determined that in each case special access privileges were allowed to resolve production restart problems that could occur during midnight shift processing. In all such cases, special privilege access is logged and reported on the violation reports that are reviewed by Ralph Footlocker and subsequently approved by Sally Smooth.

Exhibit D-6
Page 1 of 2
WP Index *R-1*

Summary of Audit Approach

CLIENT	*Vinco, Inc.*	BALANCE-SHEET DATE	*12/31/X4*
Prepared by:	*Roger Smith*	Date:	*9/15/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/2/X4*
Account(s):	*Receivables/Revenues*		
Assertion(s):	*Existence and Rights (Ownership)*		

Summary of Inherent Risk Factors and Inherent Risk Assessment:

- *At the assertion level, the assertion is not affected by contentious accounting issues or complex calculations.*
- *No receivables are pledged or factored.*
- *Inherent risk is assessed as moderate.*

Summary of Relevant Controls:

- *Strong control environment including reconciliation controls over shipments scheduled, shipments made, and shipments processed through the billing system (see C-10* **[illustrated at exhibit D-2]***).*

  Strong accounting system and control activities over customer master file and authorization and recording of sales (see R-20, R-30, and R-40 **[R-40 is illustrated at exhibit D-3]***).*

Summary of Tests of Controls:

- *Testing of control environment and risk assessment by inquiry and observation/inspection of selected documentation (see details at C-10, C-30, and C-40* **[illustrated at exhibits D-2 and D-5]***).*
- *Testing of information and communication, monitoring, and control activities by inquiry and observation of appropriate company personnel, inspection of evidence, and reperformance (see details at R-20, R-30, R-40, R-50, R-70, R-80, R-90, R-100, R-110, G-10, G-30, and G-40* **[R-40 illustrated at exhibit D-3; G-10 illustrated at exhibit D-4; R-100, G-30, and G-40 illustrated at exhibit D-5]***).*

Control Risk Assessment:

- *Low, based on very strong controls relating to these assertions.*

Summary of Substantive Tests:

- *Analytical procedures (with comparisons between years and to budget) including volume sales by product line, average sales price by product line, days' sales in receivables.*
- *Confirmation of a small sample (high tolerance for sampling error) of customer balances selected randomly from the 10/31 A/R trial balance applying a PPS sample selected on the firm's sample-size determination tables.*
- *Analytical procedure of activity in the "roll forward" period from 10/31 to 12/31.*
- *Limited test of shipping cutoff at year end.*

Exhibit D-6
Page 1 of 2
WP Index *R-2*

Summary of Audit Approach

CLIENT *Vinco, Inc.* BALANCE-SHEET DATE *12/31/X4*
Prepared by: *Roger Smith* Date: *9/15/X4*
Reviewed by: *Paul Harmon* Date: *10/2/X4*
Account(s): *Receivables/Revenues*
Assertion(s): *Completeness*

Summary of Inherent Risk Factors and Inherent Risk Assessment:

- *No significant risk factors. Inherent risk is assessed as moderate.*

Summary of Relevant Controls

- *Strong control environment (see C-10* **[illustrated at exhibit D-2]***).*
- *Strong information and communication, monitoring, and control activities over initial recording of transactions and ensuring completeness in subsequent processing including reconciliation controls over shipments scheduled, shipments made, and shipments processed through the billing system (see R-20, R-30, and R-40* **[R-40 is illustrated at exhibit D-3]***).*

Summary of Tests of Controls:

- *Testing of control environment by inquiry and observation and various other tests (see details at C-10, C-30, and C-40* **[illustrated at exhibits D-2 and D-5]***).*
- *Testing of information and communication, monitoring, and control activities by inquiry and observation of appropriate company personnel, inspection of evidence, and reperformance (see details at R-20, R-30, R-40, R-50, R-70, R-80, R-90, R-100, R-110, G-10, G-30, and G-40* **[R-40 illustrated at exhibit D-3; G-10 illustrated at exhibit D-4; R-100, G-30, and G-40 illustrated at exhibit D-5]***).*

Control Risk Assessment:

- *Low, based on very strong controls relating to this assertion.*

Summary of Substantive Tests:

- *Same procedures as existence and rights assertions (see R-1):*
  - *Analytical procedures*
  - *Confirmation of receivables*
  - *Review of "roll forward"*
  - *Limited test of shipping cutoff at year end.*

Exhibit D-6
Page 1 of 2
WP Index *R-3*

Summary of Audit Approach

CLIENT	*Vinco, Inc.*	BALANCE-SHEET DATE	*12/31/X4*
Prepared by:	*Roger Smith*	Date:	*9/15/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/2/X4*
Account(s):	*Receivables/Revenues*		
Assertion(s):	*Valuation (Objective That Receivables Are Properly Recorded at Gross Value)*		

Summary of Inherent Risk Factors and Inherent Risk Assessment:

- *Large volume of transactions; however, calculations are not complex.*
- *No significant accounting issues.*
- *Inherent risk is assessed as moderate.*

Summary of Relevant Controls:

- *Strong control environment (see C-10* **[illustrated at exhibit D-2]***).*
- *Strong information and communication, monitoring, and control activities over customer master file and authorization and recording of sales including reconciliation controls over shipments scheduled, shipments made, and shipments processed through the billing system (see R-20, R-30, and R-40* **[R-40 is illustrated at exhibit D-3]***).*

Summary of Tests of Controls:

- *Testing of control environment by inquiry and observation and various other tests (see details at C-10, C-30, and C-40* **[illustrated at exhibits D-2 and D-5]***).*
- *Testing of information and communication, monitoring, and control activities by inquiry and observation of appropriate company personnel, inspection of evidence, and reperformance (see details at R-20, R-30, R-40, R-50, R-70, R-80, R-90, R-100, R-110, G-10, G-30, and G-40* **[R-40 illustrated at exhibit D-3; G-10 illustrated at exhibit D-4; R-100, G-30, and G-40 illustrated at exhibit D-5]***).*

Control Risk Assessment:

- *Low, based on very strong controls relating to this assertion.*

Summary of Substantive Tests:

- *Same procedures as completeness and right assertions (see R-1):*
  - *Analytical procedures*
  - *Confirmation of receivables*
  - *Review of "roll forward"*
  - *Limited testing of shipping cutoff at year end.*

Exhibit D-6
Page 1 of 2
WP Index *R-4*

Summary of Audit Approach

CLIENT	*Vinco, Inc.*	BALANCE-SHEET DATE	*12/31/X4*
Prepared by:	*Roger Smith*	Date:	*9/15/X4*
Reviewed by:	*Paul Harmon*	Date:	*10/2/X4*
Account(s):	*Receivables/Revenues*		
Assertion(s):	*Valuation (Objective That Receivables Are Properly Stated at Realizable Value)*		

Summary of Inherent Risk Factors and Inherent Risk Assessment:

- *There is a high degree of judgment involved in determining the allowance for doubtful accounts.*
- *Average of two to three months sales in receivables.*
- *Annual write-offs average 3% of sales.*
- *Inherent risk is assessed as high.*

Summary of Relevant Controls:

- *Good control activities to determine reserve (see R-60* **[illustrated at exhibit D-3]***). However, some audit adjustments have historically been made in this area because of its volatile and subjective nature.*

Summary of Tests of Controls:

- *Control activities to determine reserve are tested using a dual-purpose testing approach in connection with substantive tests.*

Control Risk Assessment:

- *Moderate risk of errors in the reserve because of its volatile and subjective nature.*

Summary of Substantive Tests:

- *Analytical procedures (comparison of aging statistics and write-offs between years, comparison of reserve to agings).*
- *Discuss with management the reserve requirements needed for past-due accounts by customer, product line, and region of the country (this is a dual-purpose test because it provides evidence of the effectiveness of management's reserve estimates).*

Exhibit D-7
Page 1 of 2
WP Index *R-5*

Vinco, Inc.
Update of Risk Assessments for Receivables and Revenues

Completed by: *Roger Smith* Date: *2/13/X5*
Reviewed by: *Paul Harmon* Date: *2/15/X5*

On February 13, I made inquiries of the controller, internal audit manager, data processing manager, and the credit manager about changes in the business or in internal control that would affect the inherent and control risk assessments for receivables and revenues noted at R-1 through R-4 **[illustrated in exhibit D-6]**. *Specifically, inquiries were made about changes in—*

- *Industry, economic, business, or other factors that would affect receivables and revenues (Changes in Risk Assessment).*
- *Control environment factors that would affect receivables and revenues (see C-10)* **[illustrated in exhibit D-2]**.
- *The information and communication, monitoring, and control activities for the revenue cycle (see R-10 through R-60)* **[illustrated in exhibit D-3]**.
- *Computer general control activities that would affect the revenue cycle (see G-10)* **[illustrated in exhibit D-4]**.

Based on these inquiries, I learned that there were several minor changes to the accounting system and control activities (appropriate revisions were made to our documentation at R-20 and R-50 **[not illustrated]**). *However, these changes were adequately controlled through the computer general control activities and do not significantly affect our control risk assessments at R-1 through R-4.*

In addition, the results of our substantive tests for receivables and revenues (including analytical procedures, confirmations, roll-forward testing, shipping cutoff testing, and valuation testing) did not disclose any changes in the business or any significant misstatements that would indicate a potential breakdown in the controls we considered in making our inherent and control risk assessments.

Based on the above inquiries and other tests, the inherent and control risk assessments noted at R-1 through R-4 **[illustrated in exhibit D-6]** *are still valid at year end and there is no need for (1) further updating of our tests of controls* **[summary illustrated in exhibit D-5]** *or (2) revisions to our substantive tests.*

Appendix A

Case Study: Fawn Exercise Products, Inc.

Introduction

The purpose of this appendix is to provide additional guidance to auditors in applying SAS No. 55, as amended by SAS No. 78, in audits of financial statements for clients using computer systems. This appendix was developed from the Auditing Procedure Study *Consideration of the Internal Control Structure in a Computer Environment: A Case Study.*

This appendix does not attempt to address the wide variety of circumstances auditors may encounter when clients use computers. Rather, it focuses on a set of client characteristics that might be encountered in a particular audit. The audit strategy and related procedures described represent how one auditor might conduct the engagement. It should be recognized that other approaches would also be appropriate.

This appendix presents a case study of an audit of Fawn Exercise Products, Inc. (Fawn). The case presents the way in which an auditor might approach the tasks of—

- Obtaining an understanding of internal control.
- Assessing control risk and performing tests of controls.
- Developing substantive tests.

The information presented focuses primarily on the client's revenue cycle. The documentation represents one way that such information might be recorded. For example, the annotated flowcharts presented in exhibits A.2A through A.5B represent how the auditor might document the process of consolidating some of the components of his or her understanding of internal control.

Structure of the Case Study

The case assumes that the same audit firm has been the auditor of Fawn since the inception of the company. The case focuses primarily on Fawn's internal control and includes information that would normally be available to the auditor when assessing control risk. Such information would be obtained either through prior audits of the client's financial statements or in connection with the current year's audit.

Paragraphs A-1 through A-7 describe the business environment, including the exercise equipment industry, in which Fawn operates. It discusses Fawn's history, business operations, and other relevant information. The chapter also provides a summary of some of the more significant inherent risk factors considered in planning the engagement, along with an assessment of Fawn's characteristics as they relate to these inherent factors.

Paragraphs A-8 through A-44 describe the five internal control components: the control environment, risk assessment, control activities, information and communication, and monitoring. For purposes of this case study, the auditor's consideration of internal control is focused on the revenue cycle: the order entry, sales invoice processing, shipping, and accounts receivable subsystems. Flowcharts and narrative descriptions of these subsystems are presented and control activities are identified.

Paragraphs A-45 through A-66 illustrate how the auditor related management's financial statement assertions (as outlined in SAS No. 31, *Evidential Matter*) to the control objectives and the control activities identified. This is supplemented by a listing of tests of controls performed by the auditor and the auditor's assessment of control risk.

Paragraphs A-67 through A-72 present a discussion of how the auditor determined the nature of substantive tests for financial statement balances and classes of transactions based on the assessed level of control risk.

CONTENTS

Background Information: Fawn Exercise Products, Inc.

Paragraphs A-1 through A-8 provide background information on Fawn Exercise Products, Inc.

Background

A-1. Fawn was founded 12 years ago by three individuals who are currently its chief executive officer, president, and vice president. Its growth has been internally generated except for one acquisition three years ago that was funded through stock and debt offerings. Through this acquisition, Fawn expanded its customer base to 40 states. Foreign sales are infrequent and are not significant in amount.

A-2. Fawn has two major competitors. Fawn had been gaining market share until this year, when a competitor's products became increasingly price competitive. The increased price competition reduced Fawn's market share from 32 percent to 29 percent. Revenues, however, have continued to rise.

Business Operations

A-3. Fawn's product line is centered around exercise equipment, including rowing machines, treadmills, weight machines, and stationary bicycles. Although the total number of items marketed has historically been less than 100, this past year it increased to 125. Inventory obsolescence has been a factor in prior years due to product enhancements and changing consumer preferences.

A-4. Fawn markets its products to wholesalers and major retailers of health and fitness products. Substantially all of Fawn's sales are derived from a direct sales force or telephone orders from existing customers.

A-5. Although Fawn does not manufacture any of its products, it does hold exclusive long-term purchase contracts with product manufacturers. All of these suppliers are located in the Caribbean basin, with the exception of one domestic supplier located in Dothan, Alabama.

A-6. Assets consist primarily of cash; accounts receivable; inventories; and property, plant, and equipment (an office building, warehouses, and equipment). During the current year (19XD), Fawn generated approximately $450 million in sales. A summary of Fawn's performance during the current and past three years is as follows:

Year	*Gross Revenue*	*Net Income*
	(000s omitted)	
19XA	$362,000	$24,616
19XB	385,000	27,720
19XC	412,000	29,664
19XD	450,000	30,375

A-7. Fawn's management uses a relatively aggressive marketing philosophy. Throughout its 12 years of existence, Fawn has increased revenues and earnings each year. Management closely monitors the company's operations and financial performance.

Inherent Risk Considerations

A-8. The following table summarizes the factors of Fawn's business and accounting environment that are subject to inherent risk:

Inherent Risk Factors	*Characteristics*
Industry economics	Strong and growing.
Market position	Steady—market share increased each year until current fiscal year.
Technology	Rapid advances in product development.
Competition	Strong, especially in the last 12 months.
Suppliers	Highly dependent on Caribbean basin suppliers. Product quality is inconsistent, and purchase invoices are susceptible to error.
Regulatory environment	Few regulations.
Product liability	Physical fitness products are susceptible to safety litigation.
Customers	A large number of customers in various sizes, with no unusual concentrations or risks.

Understanding Internal Control

Paragraphs A-9 through A-44 provide the reader with information about Fawn's internal control.

Control Environment

Board of Directors

A-9. Fawn's outside directors are generally knowledgeable about the specific aspects of the company's organizational structure, management control methods, and human resource policies and practices. There has been no turnover in this group in the last five years. The audit committee, which is composed of outside directors, is considered to be effective.

Senior Management

A-10. Senior management takes an active role in controlling the business and dictates the company's management philosophy and operating style. This style encourages an entrepreneurial attitude, and senior and middle management are relatively aggressive in taking business risks.

Other Control Environment Factors

A-11. Management, which has had very little turnover, is considered to be competent. Management is generally concerned with financial reporting matters and with the adequacy of accounting and operational controls.

A-12. Level of activity in the sales, inventory, and receivables areas has increased with the growth of the company. Operating and accounting reports are reviewed and provide a basis for timely error correction. There are no related-party transactions.

A-13. Although the sales, inventory, and accounting areas are slightly understaffed, the accounting and clerical personnel have appropriate technical skills, are adequately supervised, and are believed to be competent. However, mistakes are occasionally made when personnel are under time pressure. New hires are screened for appropriate qualifications.

A-14. Employee manuals specify the assignment of responsibility, scope of authority, organizational goals, operating functions, job descriptions, and reporting relationships. Other manuals describe acceptable business practices and codes of conduct. These manuals were adopted four years ago and have not been updated.

A-15. All managers are eligible for bonus incentive plans, which in turn are closely linked to budgetary goals. Performance evaluations and salary reviews are sporadic and not structured. Training programs are not consistently maintained.

Risk Assessment

A-16. The chief financial officer and controller are involved in Fawn's planning process and are familiar with generally accepted accounting principles as they affect Fawn's financial statements. There is no formal process to assess risks affecting financial reporting; however, there is an informal ad hoc approach.

Control Activities

A-17. The company maintains a three-year plan that is updated by senior and middle management at their annual planning meeting. These plans and related budgets are set forth in detail.

A-18. All divisions are under budgetary controls and management carefully monitors results weekly; adverse trends are investigated and appropriate action is taken promptly. Control activities at a component level are contained elsewhere in the working papers.

Information and Communication

Data Processing

A-19. Management has computerized its information systems, purchasing industry-specific off-the-shelf software for major applications. Five database systems are in place: order entry, shipping/billing, and accounts receivable; inventory; merchandise planning, purchasing, and accounts payable; personnel and payroll; and general ledger.

A-20. The software packages are constantly being enhanced by the in-house computer staff. Hardware is added in a modular fashion as required. Personal computers (PCs) are used for planning and budgeting.

A-21. A well-managed computerization program has been used to Fawn's competitive advantage in containing personnel costs during its rapid growth and in providing timely information for serving customers.

A-22. Fawn's computer resources are depicted in exhibit A.1.

Communication

A-23. Communication between departments is generally good. Management follows up quickly on communications from outside parties that indicate that problems have occurred within internal control or that employees have acted inappropriately.

Monitoring

A-24. There is a small internal audit function, which is considered experienced and competent, except that the staff has a minimal electronic data processing (EDP) background. The head of internal audit reports to the chief financial officer and has access to the audit committee. The recommendations of the internal auditors (as well as those of the external auditor) have generally been implemented.

Exhibit A.1

Computer Resources

Fawn Exercise Products, Inc.

Central Computer Facility
The central computer facility consists of two large clustered minicomputers of the Digital Computer Equipment VAX™ 6XXX series, with disks, tapes, printers, and terminals. (The 6XXX is comparable in size to computers such as the IBM 43XX series and the Unisys A series.) The computer staff is located in the central facility.

User terminals and printers are located at the central office and warehouse, and at each of the four remote warehouses.

Systems Software

- Operating system—VMS™
- Access language—Rdb/VMS™
- Data dictionary—VAX™ CDD™
- Report generator and data manager—VAX™ DATATRIEVE™
- Compiler—COBOL
- Command language—DCL
- Job scheduler—JOBMGR (Q Software Co)*
- Library system—TAPEMGR Librarian Package (Q Software Co)
- Security software—VAX™ VMS™ facilities

All users and files are identified by a unique user ID code (UIC).

Data-Entry Points
Data-entry points are located in all user departments plus the five warehouses.

Staffing

- Director of computer services
- Operations manager, who supervises three computer operators and two clerks
- Two systems analysts
- Programming manager, who supervises six application programmers
- Database administrator (DBA) and two clerks

Data Communications

- DECnet™ protocol
- Local—Ethernet
- Remote—leased lines

The four remote warehouses are on-line to the central warehouse.

End-User Computing
PCs are connected to the central computer for inquiry and download functions only.

*Q Software is the name of a fictitious company.

Note: VAX, VMS, DECnet, DATATRIEVE, CDD, and Rdb/VMS are trademarks of the Digital Equipment Corporation.

Description of Financial Reporting Information System and Control Activities for the Revenue Cycle

A-25. Fawn's integrated order-entry, shipping/billing, and accounts receivable database system and relevant control activities are depicted in the following flowcharts (exhibits A.2A through A.5B). Routine maintenance changes have been made to these applications during the current year.

Master File Data

A-26. The customer database contains basic descriptive and reference information as well as customer credit limits. The inventory/sales price database includes current and previous sales prices.

A-27. Master file information is updated on-line. New customers are added and price changes are made by sales managers only. Special prices may be offered by order-entry supervisors only, based on verbal authorization from a sales manager. Credit limits are established and updated by the credit department and may be overridden by the order-entry supervisor based on the verbal authorization of the credit managers.

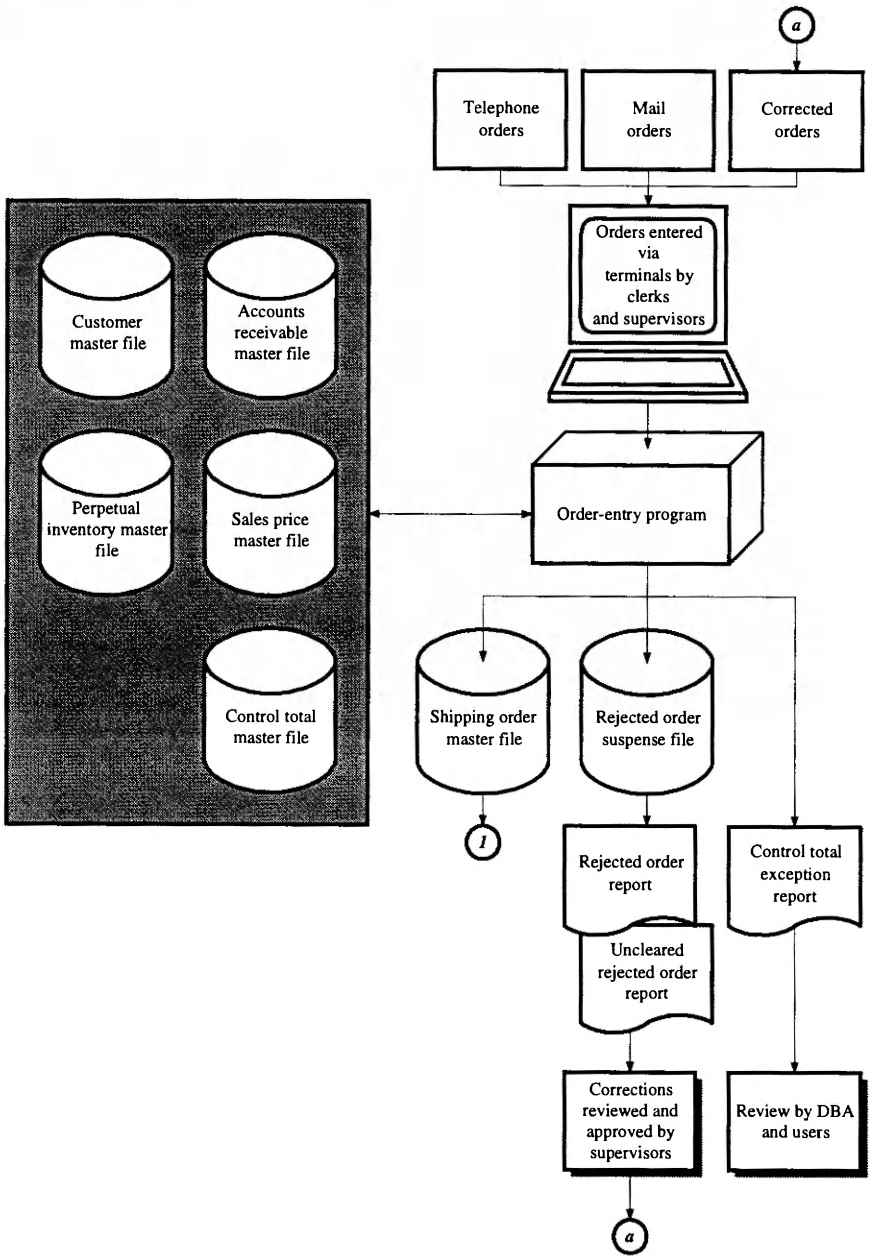
A-28. Changes to the master file data are reported daily to the inputting departments so that they can be checked against the documents authorizing the changes. They are also used by supervisors for operational purposes. General computer controls over access to data and resources, including the master file, are described and evaluated in paragraphs A-36, A-37, A-39 through A-42, and in paragraph A-62.

General Computer Control Activities and Other Information

A-29. Financial system development, testing, documentation, and maintenance are primarily the responsibilities of the MIS department, with the active participation of the user departments. New systems and maintenance must be approved by the user department prior to being placed into operation. EDP and user documentation of key systems is maintained in accordance with standards established by management. Management policies relative to system development, maintenance, systems access, and transaction authorization are described in policy manuals.

Exhibit A.2A

Order Entry



Note: Files in shaded areas are all accessible to order-entry program.

Exhibit A.2B

Control Activities

The order-entry activities incorporate the following programmed controls:

E1 Determine that the proper terminal is being used.

E2 Verify the user's password, which authorizes access to appropriate data fields and permits the execution of certain order-entry transactions.

E3 Validate sales order information (identify inaccurate entries and data not meeting predefined criteria), including—

a. The existence of a customer relationship and an accurate customer name and address.

b. Accurate product descriptions.

c. Proper unit pricing.

d. Terms.

E4 Compute and compare the total amount of the order plus the current account receivable balance against the customer's credit limit.

E5 Determine the availability of goods for shipment: backorders held in rejected order file for customer acceptance.

E6 Assign a sequential number to sales orders.

E7 Compute and compare control totals within and between databases and between cycles, producing control total exception reports. Differences are investigated by the operators, DBA, and users, and errors are corrected and reentered after review and approval by appropriate levels of management.

E8 Reject orders from processing that do not meet the preceding criteria. Rejected orders are accumulated on the daily rejected order file and listed for subsequent investigation by the order-entry supervisor. Update and age the suspense file of uncleared rejected items, which is reviewed weekly by supervisors.

E9 Accept corrections of prior rejected orders via terminal and remove them from the rejected order suspense file. Access is limited to the supervisor's password.

Exhibit A.3A

Shipping

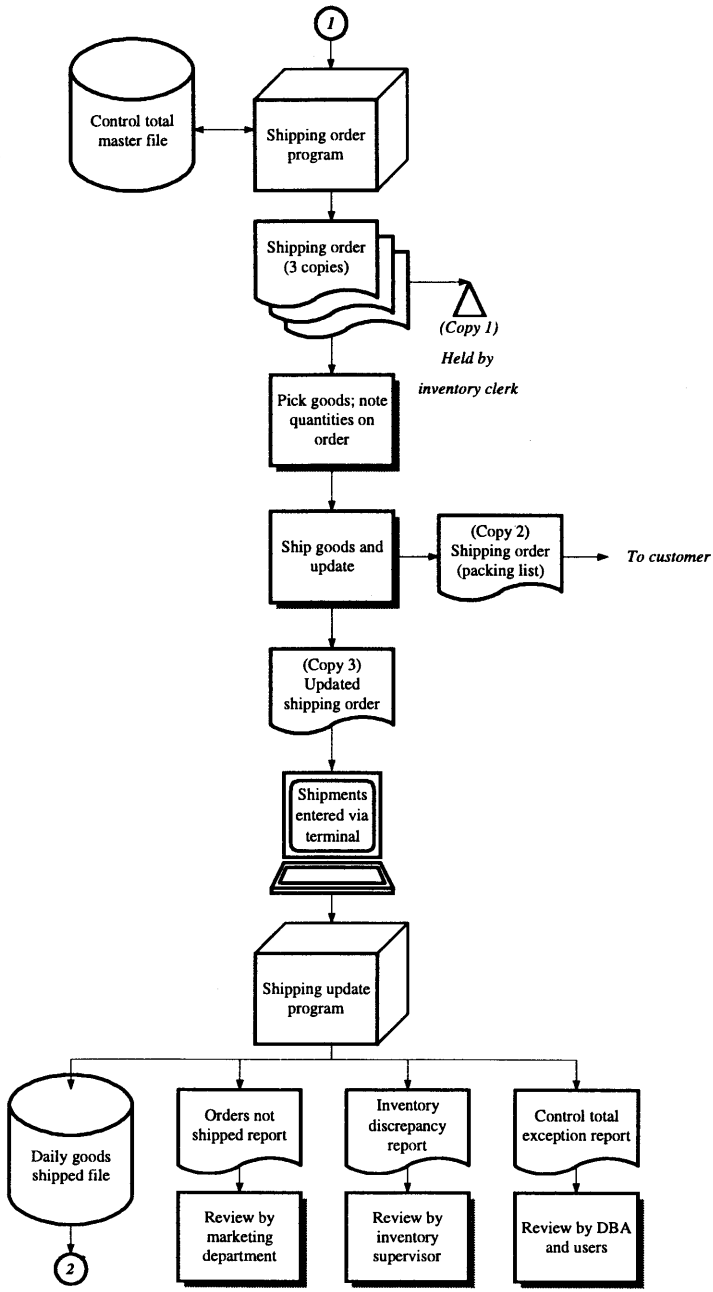


Exhibit A.3B

Control Activities

Shipping activities incorporate the following programmed controls:

S1 Determine that the proper terminal is being used.

S2 Verify the user's password, which authorizes access to data and the execution of shipping transactions. Access is granted to the quantity-shipped data fields only.

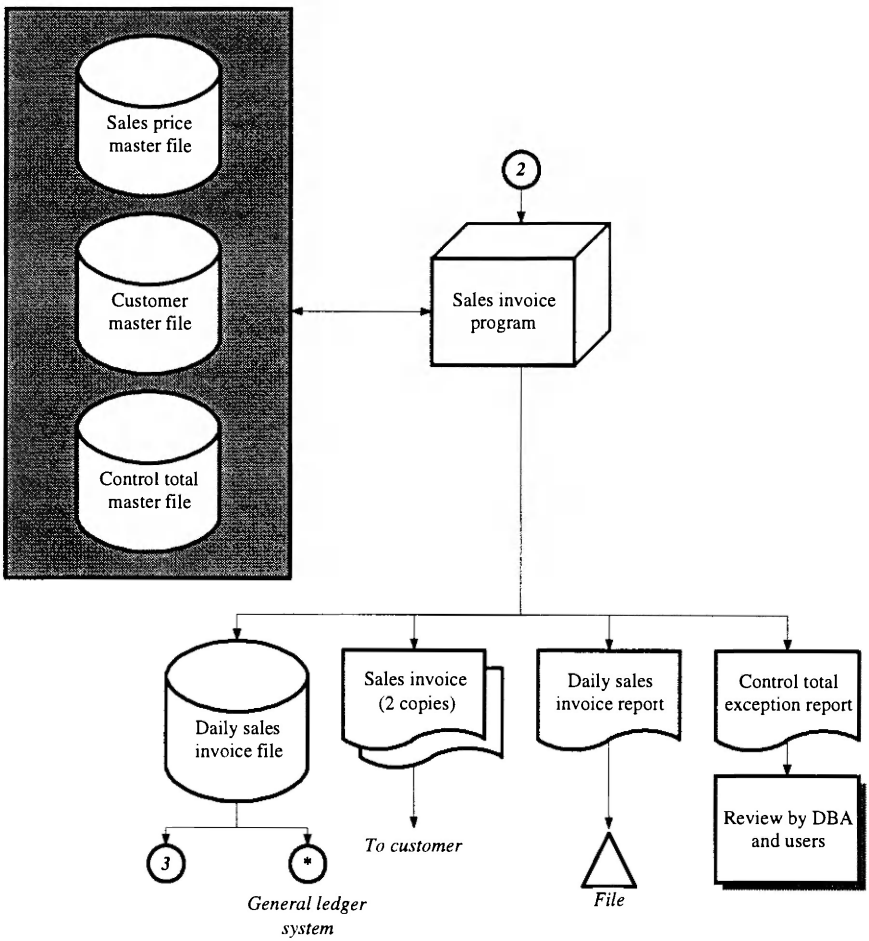
S3 Compare the quantity picked to the quantity on shipping order.

S4 Assign a sequential number to shipping order.

S5 Compute and compare control totals within and between databases and between cycles, producing exception reports of differences. Differences are investigated by the operators, DBA, and users, and errors are corrected after review and approval by the manager of computer services.

Exhibit A.4A

Sales Invoice Processing



* Not addressed in case study.
Note: Files in shaded area are all accessible to sales invoice program.

Exhibit A.4B

Control Activities

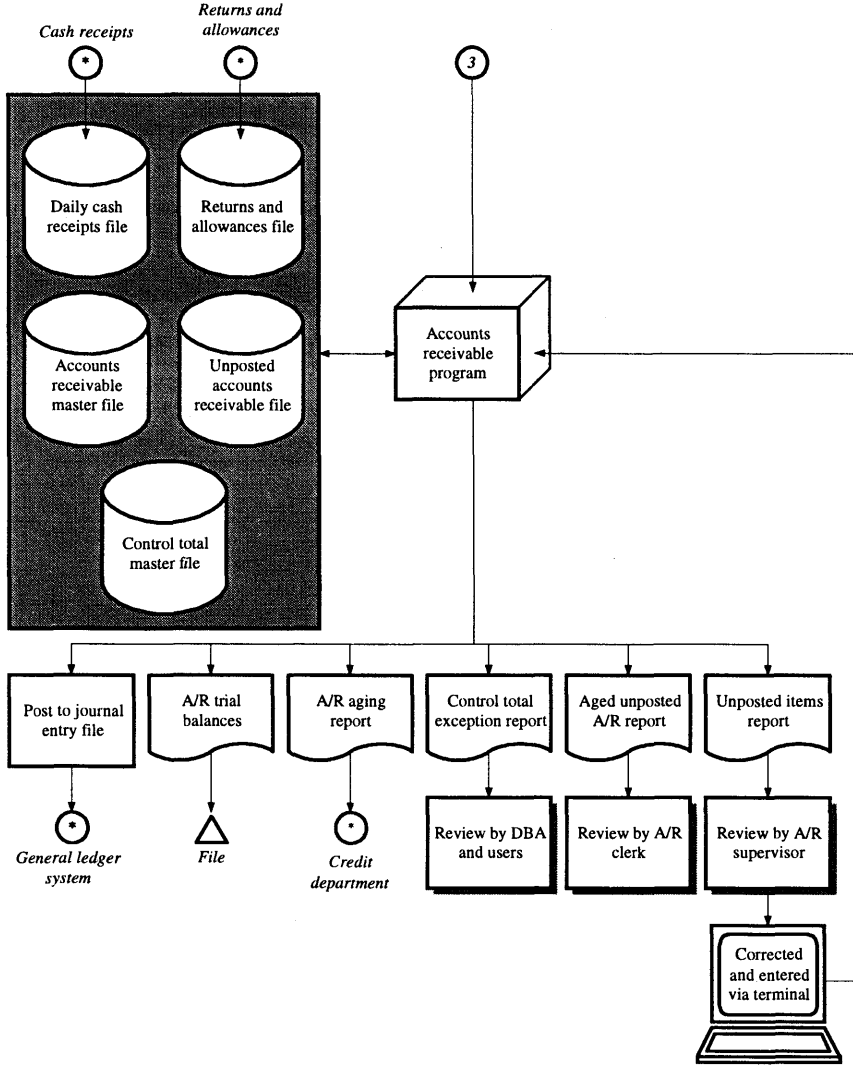
The sales invoice activities incorporate the following controls:

V1 Assign a sequential number to sales invoices.

V2 Compute and compare control totals within and between databases and between cycles, producing exception reports of differences. Differences are investigated by the operators, DBA, and users, and errors are corrected after review and approval by the manager of computer services.

Exhibit A.5A

Accounts Receivable



* Not addressed in case study.
Note: Files in shaded area are all accessible to accounts receivable program.

Exhibit A.5B

Control Activities

The accounts receivable activities incorporate the following controls:

R1 Determine that the proper terminal is being used. Access is limited to the accounts receivable clerks and is read-only, except that accounts receivable clerks may investigate the unposted items report and enter corrections.

R2 Verify the user's password, which controls access to data and authority to execute accounts receivable transactions.

R3 Compare sales invoice data to corresponding data on the accounts receivable master file.

R4 Compute and compare control totals within and between databases and between cycles, producing exception reports of differences. Differences are investigated by operators, the DBA, and users, and errors are corrected after review and approval by the manager of computer services.

R5 Reject unposted items from processing and accumulate them on the unposted accounts receivable items file. Rejected items are also listed for subsequent investigation by the accounts receivable supervisor.

R6 Accept corrections of prior rejected items via terminal and remove them from the unposted accounts receivable items file. Access is limited to the supervisor's password.

R7 An accounts receivable clerk uses the aged listing of the unposted accounts receivable items file to research and resolve the reason for the rejection.

R8 An accounts receivable clerk compares the sales invoices to the daily sales invoices report obtained from the sales processing department. If the information agrees, two copies of the sales invoice are mailed to the customer. If there is an exception, the sales invoices are referred to the accounts receivable supervisor for investigation and disposition.

R9 An accounts receivable clerk reviews the control total exception report, comparing the control total of goods shipped file to the daily sales invoice file.

A-30. Controls over computer activities have been classified by the auditor as pertaining to—

- Development of new programs and systems.
- Changes to existing programs and systems.
- Access to programs and data.
- Computer operations.

Controls over development of new programs and systems

A-31. Feasibility studies for all major applications are performed by the director of computer services with a designated user-manager. Once an application is deemed to be cost-effective, the study is expanded into functional specifications. The internal auditors participate in the development of these functional specifications.

A-32. Management policy is to acquire off-the-shelf software whenever practical, rather than develop software in-house. Requests for proposal (RFPs) are prepared by systems analysts based on functional specifications. A selection committee uses a weighted checklist in choosing the software based on vendor proposals.

A-33. Systems for which purchased software is not cost-effective are developed in-house. The functional specifications are expanded into systems specifications, which the user reviews and approves at various stages of the development process. Users are also involved in the test phase of all software programs and systems and must sign off at the completion of each test. Systems are operated in parallel prior to the changeover.

Controls over changes to existing programs and systems

A-34. Program changes are typically initiated by the users who are involved at each stage of the process, including sign-off on sequentially numbered change forms. Programmers occasionally initiate "technical changes," which have sometimes caused operational problems. All changes are coordinated with the DBA, and detailed documentation of program changes is prepared and maintained.

A-35. The following control activities are performed by the programming manager:

- Review program changes, test results, and, on a test basis, the code itself.
- Submit all tested program changes to operations for cataloging in the production library using the TAPEMGR librarian package.
- Review emergency changes, after the fact, and those changes effected by the data processing manager in his absence.

Major upgrades and changes to outside software are made as follows:

- VMS™ systems—made by Digital systems consultants
- Integrated database package—made by the vendor

All changes are reviewed by the programming manager.

Controls over access to programs and data—users

A-36. Passwords, which are selected by the users, are required to be at least five characters long and may not contain easily guessed information. Passwords are stored in an encrypted form. The company's policy is to change passwords every six months. Although the security system includes a feature that automates the execution of this policy, that feature was not activated

when the security system was implemented. There is no formal coordination between the personnel and data processing departments to delete passwords of terminated employees. Passwords are commonly exchanged among personnel in a department.

A-37. Application profiles are in place for all job functions. The profiles define—

- The programs, database elements, and level of access permitted.
- The terminals from which access is available. Each user is associated with one or more application profiles.

Controls over access to programs and data—data processing function

A-38. Systems analysts and programmers have access to the programs in the source library only, while operators have access to the compiled versions in the production library only. Only test files are used in program testing; these are created by programmers who are allowed to read and copy, but not update, user files.

A-39. All tasks within the data processing operation have been profiled in the password system, creating the following segregation of duties:

- Systems analysts and programmers are prevented from accessing production programs and live databases.
- Operators are restricted from accessing the program source code and the databases at the data-element level.
- The director of computer services and the DBA have the highest privilege, with access to all data files, including the user authorization file.

A-40. A log of identified access violations is printed out daily and reviewed by the DBA. After indicating the results of his or her review on the log, the DBA notifies user-managers and EDP personnel of problem areas and follows up as necessary.

A-41. Access to the computer room is restricted to operations personnel and data processing management.

A-42. Tapes are used primarily for backup and are stored in the computer room. All operators have access to the tapes. Important forms, such as blank checks and invoices, are kept in a secure storage room. A reconciliation is performed of the quantity of forms used with the number of documents printed. Reports are distributed via the company's internal mail system, according to lists maintained in the data processing department. Terminals in user departments are movable, although some are located in offices that are locked at night.

Computer operations controls

A-43. Operations documentation is maintained and used for solving operational problems and training new operators.

A-44. Job scheduling and production monitoring are well managed, as described below:

- Job control instructions are stored on disk. Jobs are run from the operator's terminal.
- All regular jobs are scheduled. Schedules include estimated run times.
- Production problem logs are reviewed by the operations manager for abnormal termination of jobs and other exceptions, such as cycle-to-cycle file-balancing errors.

- Most problems are handled by the operators as they occur.
- Daily exception reports showing deviations from schedule, and unscheduled jobs, are reviewed by the operations manager.
- System performance reports are reviewed periodically by the operations manager.
- The programming manager compiles approved and tested program changes and catalogs them in the production library using the TAPEMGR librarian package.

Backup is created daily for key files and weekly for all others. Checkpoint/restart capabilities are built into the software, in case of software or hardware failure.

Tests of Controls and Assessing Control Risk

Paragraphs A-8 through A-44 describe the auditor's understanding of Fawn's internal control. Paragraphs A-45 through A-66 illustrate how the auditor in this case considered that information, designed tests of controls, and assessed control risk for the financial statement assertions. Although discussed separately, the tests of controls described may have been performed concurrently as the auditor updated his or her understanding of internal control.

A-45. For the purposes of this study, it is presumed that the auditor performed tests of certain relevant controls by inquiry, observation, and inspection of evidence. For example, the auditor observed management's involvement in the accounting function, inspected management's operating plan and budgets, and held discussions with the internal auditor. Similarly, the auditor inquired, observed, and inspected evidence related to the financial reporting information system and traced several transactions through the system. The auditor also considered the effect and performed tests of general computer control activities—those activities common to all major applications—as described in the following six paragraphs. A discussion of the consideration of the effect, and tests, of the application control activities follows that discussion.

A-46. General computer control activities, as outlined in paragraphs A-29 through A-44, have been divided into four types:

1. Controls over development of new programs and systems
2. Controls over changes to existing programs and systems
3. Controls over computer operations
4. Controls over access to programs and data

A-47. The auditor considered the first three types of controls as relating to the risk of material misstatement primarily for the assertions of completeness, valuation, and existence. The preliminary audit strategy was to assess control risk as low for the assertions of completeness and valuation, and to perform tests of these three types of general computer control activities to obtain evidence to support that assessed level of control risk. The auditor considered the fourth type of controls (controls over access to programs and data) as primarily relating to the risk of material misstatement for the assertion of existence. Since the auditor considered controls over access to revenue cycle data to be weak, his or her preliminary audit strategy was to assess control risk with respect to the existence assertion at slightly below the maxi-

mum. The auditor considered the inherent risk in receivables to be overstatement in receivables. Therefore, the audit strategy relative to that assertion focused primarily on substantive testing (see paragraph A-62 for a discussion).

Controls Over Development of New Programs and Systems

A-48. Tests of adherence to software acquisition, system development, and installation policies included inquiries of the director of computer services, user-managers, and the programming manager. Minutes of management committee meetings were reviewed for definitions of the policies. The auditor also reviewed memos documenting meetings of the users and the computer staff. This review indicated that the users fully participated in the feasibility study and the development of functional specifications. The feasibility studies, functional specifications, RFPs, and system and user documentation were examined for the order-entry (which includes credit limit processing), billing, and accounts receivable modules and found to be prepared according to the policies. For selected new programs, the auditor examined documentation for user sign-off. The auditor also examined documentation of the preinstallation testing and documentation of the operation of the system after going live to determine that any problems were addressed and resolved. Discussions with the users indicated that they understand the systems well and that the systems are operating effectively.

User-Initiated Program Changes

A-49. The change request log was reviewed for completeness, and no missing or duplicate numbers were found.

A-50. Selected change orders were reviewed for authorization of all of the key steps, including user request, data processing acceptance, detailed definition by the systems analyst, assignment to a programmer, creation of test data, program and system testing, sign-off by operations, and acceptance by the users. These change orders were then traced to the—

- Programmer master schedule and weekly production reports.
- The overdue report for those lagging behind the original estimated completion date.
- Program cataloging reports produced by the librarian package.

A-51. The users and operators were observed using the latest versions of documentation manuals.

Computer Operations Controls

A-52. The auditor inquired of computer operators about, and observed, their adherence to policies, conformity with documented procedures, and follow-up on exceptions and problems. The auditor discussed the operating procedures with the operators and operations manager and was satisfied that they were competent and understood their jobs, including the procedures for handling exceptions. The auditor examined printouts of the master schedule, backup logs, daily exception reports, production problem logs, and systems performance reports, and found that they are appropriately reviewed and follow-up actions are taken.

A-53. The auditor examined selected printouts of the production problem logs, including problems caused by—

- The vendor packages themselves.
- Programming changes made in-house.
- Operations.

- User errors.
- Out-of-balance transactions and summary totals.

A-54. Action reports were examined evidencing that appropriate corrective action was taken by the operators, the vendor, the programmers, the DBA, and the users. Management approval on the action reports was also noted.

The Relationship of Application Control Activities to Management Assertions

A-55. The matrix presented in table A.6 shows how the auditor in this case related financial statement assertions, control objectives, and application control activities. The matrix assisted the auditor in designing substantive procedures by relating application control activities to management's assertions embodied in the financial statements.

A-56. The references included in the assertion columns correspond to the control activities set forth in the flowcharts in paragraphs A-8 through A-44. For example, reference E8, located in the matrix under the assertion "existence/occurrence," corresponds to the order-entry system flowchart—control activity #8. S corresponds to shipping system, R to the accounts receivable system, and V to the sales invoicing system. Procedure E8 also relates to the control objective that receivables transactions are authorized in accordance with management's criteria.

Table A.6

Relationship of Application Control Activities to Financial Statement Assertions

Financial Statement Assertions

Control Objectives	*Existence / Occurrence*[1]	*Completeness*	*Rights and Obligations*[2]	*Valuation / Allocation*	*Presentation and Disclosure*[2]
1. Sales orders meeting management's criteria are accepted for processing. • Customers are authorized in accordance with management's criteria. • Prices and terms of shipment are authorized in accordance with management's criteria. • Sales orders are controlled.	• Verifies proper terminal. • Verifies user password (E2). • Rejects invalid orders (E8). • Accepts corrections by supervisor only (E9).	• Assigns control sales order number • Compares control totals (E7). • Updates and reviews aged file of rejected items (E8).	—	• Validates sales order (E3). • Verifies credit limit (E4). • Rejects invalid orders (E8). • Processes corrected orders (E9).	—
2. Goods are shipped for valid sales orders.	—	• Assigns shipping order number (S4). • Compares control totals (S5).	—	• Validates quantities shipped (S3).	—

Key:

References (E1, E2, and S1) are to the flowcharts in exhibits A.2A through A.5B.

E = Order entry V = Sales invoice processing
S = Shipping R = Accounts receivable

1. Because the auditor has determined that the general EDP control affecting access to data and programs is weak and because of the inherent risk assessment, he or she would not test control activities relating to the existence assertion.
2. There are no control activities that address the assertions of (1) rights and obligations or (2) presentation and disclosure.

Control Objectives	*Existence / Occurrence*[1]	*Completeness*	*Rights and Obligations*[2]	*Valuation / Allocation*	*Presentation and Disclosure*[2]
3. All shipments are billed and recorded correctly. ● All shipments are billed to the proper customer. ● Each customer is billed accurately and promptly.	—	● Assigns sales invoice number (V1). ● Compares control totals (V2). ● Compares control totals (R4). ● Reviews aged listing of unposted items (R7).	—	● Validates quantities shipped (S3). ● Verifies proper terminal (R1). ● Verifies user password (R2). ● Compares sales invoice data to accounts receivable data (R3). ● Rejects unposted items (R5). ● Processes corrections (R6). ● Compares sales invoices to report (R8). ● Reviews control total exception report (R9).	—
4. Invoices are accurately classified, summarized, and reported.	—	● Compares control totals (V2).	—	● Compares control totals (V2).	—
5. Adjustments to customers' accounts are accurately recorded.	● Accepts corrections by supervisor's password only (E9 and R6).	● Accepts corrections by supervisor's password only (E9 and R6).	—	● Accepts corrections by supervisor's password only (E9 and R6).	—

Key:

References (E1, E2, and S1) are to the flowcharts in exhibits A.2A through A.5B.

E = Order entry V = Sales invoice processing
S = Shipping R = Accounts receivable

1. Because the auditor has determined that the general EDP control affecting access to data and programs is weak and because of the inherent risk assessment, he or she would not test control activities relating to the existence assertion.
2. There are no control activities that address the assertions of (1) rights and obligations or (2) presentation and disclosure.

A-57. In this case, the auditor analyzed the relationship between all of the application control procedures and the various assertions. In practice, the auditor would normally analyze application control activities only for those assertions to which he or she intends to apply tests of controls. For example, controls over the existence assertion normally would not be included because the auditor is taking a primarily substantive testing approach to that assertion. Also, the auditor would perform tests for the completeness and valuation assertions only of those controls that are necessary to assess control risk as low.

A-58. The following paragraphs describe tests of controls that the auditor applied to be able to assess control risk for the relevant assertions as low and, thereby, limit substantive tests that otherwise would be necessary to reduce detection risk.

A-59. As noted in paragraphs A-8 through A-44, the auditor categorized control activities into two types: those that apply to all application systems (general computer control activities) and those that relate to specific applications only (application control activities). This delineation was further refined by identifying two types of application control activities. The first type addresses programmed control procedures, the control activities contained within the application software, while the second type includes manual procedures performed on the application's output. This distinction is significant in this case, inasmuch as the auditor decided to test those application control activities programmed into the application software through tests of the general computer control activities. The auditor's tests of controls over program development, changes to programs, and computer operations provided evidence about whether the application control activities were properly designed, implemented, and functioning. The second type of application control activities, those manual activities applied to the application's output, were tested as discussed in the following paragraphs.

A-60. The tests discussed here show how the auditor performed tests of controls for activities E8, E9, and so on. (Control references relate to the flowcharts in paragraphs A-8 through A-44.) He or she would also have performed tests of controls for other controls, but they are not illustrated in this case study.

- *Control Activity E8.* Rejected orders are listed for subsequent investigation by the order-entry supervisor.

  Tests of Control:

  — Interviewed the order-entry supervisor to determine the frequency of the review process, the activities performed in following up on the items, and any difficulties encountered.

  — Reviewed a number of reports to verify the documentation of the activities.

  — Selected a number of rejected transactions and evaluated the propriety of the action taken by the supervisor in light of the supporting documentation.

  — Spoke with user departments to confirm the nature of follow-up requests.

- *Control Activity E9.* Order-entry supervisors are authorized to clear rejected orders from the daily rejected order file. Unit prices may be changed and credit limits may be overridden based on verbal authorization of the sales manager or credit manager, respectively.

Tests of Control:

— Reviewed a sample of the daily rejected order reports for evidence of disposition of exceptions.

— For a selected month, determined that all daily rejected order reports are on file.

— Inquired of the sales manager to determine whether selected overrides were approved.

- *Control Activity S5.* Check for manual follow-up of exception reports for sales orders and shipping orders.

Tests of Control:

— Interviewed the A/R supervisor, shipping supervisor, and billing supervisor to discuss the nature and scope of their reviews, frequency of sequence breaks, and nature of follow-up actions taken.

— Reviewed support for disposition of sequence breaks.

— Reviewed uncleared sales orders, shipping orders, and sales invoices for "old" sequence numbers.

Table A.7

Summary Relationship of General and Application Controls to Financial Statement Assertions

Assertions

Control Objectives	*Existence / Occurrence*[1]	*Completeness*	*Rights and Obligations*[2]	*Valuation / Allocation*	*Presentation and Disclosure*[2]
The auditor's assessment of the adequacy of general controls (strong to weak)	Weak	Strong	N/A	Strong	N/A
The auditor's assessment of the adequacy of application controls (strong to weak)	Strong	Strong	N/A	Strong	N/A
The auditor's assessment of control risk based on consideration of general and application controls	Slightly below the maximum	Low	At the maximum	Low	At the maximum
Comments	Absence of essential general control neutralizes the effect of most application controls.	Results of tests of general and application controls support a low level of assessed control risk.	N/A	Results of tests of general and application controls generally support a low level of assessed control risk (see paragraph A-65)	N/A

Key:

References (E1, E2, and S1) are to the flowcharts in exhibits A.2A through A.5B.

E = Order entry V = Sales invoice processing
S = Shipping R = Accounts receivable

1. Because the auditor has determined that the general EDP control affecting access to data and programs is weak and because of the inherent risk assessment, he or she would not test control activities relating to the existence assertion.
2. There are no control activities that address the assertions of (1) rights and obligations or (2) presentation and disclosure.

Assessment of Control Risk by Assertion

Existence Assertion

A-61. The auditor considered the evidence available, including knowledge from prior years' engagements and information and evidence gathered during the current engagement, to determine whether controls are operating effectively. The auditor then assessed the level of control risk, on a scale ranging from low to maximum, based on his or her assessment of the strength of controls in place, on a scale ranging from weak to strong. This assessment was based on the consideration of inherent risk and both general controls and application controls (table A.7).

A-62. The auditor assessed the application controls related to the existence assertion as strong. However, general controls over existence were considered to be weak because of the absence of certain controls over access to programs and data, resulting in a significant risk that unauthorized customer information may have been added. The absence of these controls largely offsets the control benefits of the application controls. The result was an assessment of control risk for the existence assertion at slightly below the maximum.

Completeness Assertion

A-63. The auditor's tests of general and application computer controls provided evidence to support a low assessed level of control risk for the completeness assertion.

Right and Obligations Assertion

A-64. General and application controls were not considered relevant to this assertion. Therefore, the auditor assessed control risk at the maximum.

Valuation Assertion

A-65. Although general and application controls concerning the valuation assertion were generally strong, there were two areas that required attention:

1. The valuation assertion is affected by the risk that customer balances may exceed authorized credit limits because of the policy that allows order-entry supervisors to override the credit field on the customer master file (see paragraph A-27).
2. The valuation assertion is affected by the risk that, because of the override policy, changes to the price file may have caused incorrect prices to be charged and incorrect valuations of accounts receivable to be made.

Except for these two conditions, the assessment of control risk was low.

Presentation and Disclosure Assertion

A-66. No general or application controls were present for this assertion. Control risk was assessed at slightly below the maximum.

Selection of Substantive Tests

Paragraphs A-67 through A-72 discuss how the auditor's assessment of control risk is used in determining the nature of substantive testing necessary to reduce detection risk—the risk that a material misstatement in the financial statements would go undetected—to an acceptable level. The auditor's assessment of control risk for each assertion set forth in this chapter is based on the results of tests of controls as described in paragraphs A-45 and A-66.

Existence Assertion

A-67. The auditor performed substantive tests for the existence assertion for sales and accounts receivable by performing several types of procedures, including confirming account balances through direct correspondence. Based on the assessed level of control risk of slightly below the maximum, coupled with the results of analytical procedures, positive confirmation requests were mailed using audit sampling with a low to moderate risk of incorrect acceptance. Nonresponses were dealt with either by verification of subsequent cash receipts or by examination of invoices and shipping documents. The auditor reviewed the client's accounts receivable aging and the reconciliation of the accounts receivable subsidiary ledger to the general ledger account.

Completeness Assertion

A-68. In light of the low assessed level of control risk for completeness, the auditor concentrated substantive testing on detailed analytical procedures. Analytical procedures included examining aging schedules of accounts receivable; reviewing historical experience of additions, writeoffs, and turnover of receivables; and relating accounts receivable to sales and operating statistics of the company and the industry. The auditor also performed detailed analytics on sales.

Rights and Obligations Assertion

A-69. Substantive testing included reading minutes of meetings of the board of directors, making inquiries of company management, and the positive confirmation of receivables (as discussed in paragraph A-67).

Valuation/Allocation Assertion

A-70. Although the control risk assessment for this assertion was low, two areas of concern were identified (see paragraph A-66). Because of the override policies—

1. Credit limits may have been exceeded.
2. Incorrect prices may have been charged to customers.

A-71. These concerns led to an additional substantive procedure. Subsequent cash receipts were examined for those items appearing on the list of credit limit and price overrides for the last month of the year. The last month was selected because of a higher likelihood that errors would have occurred in that month. (For those credit limit overrides affecting accounts receivable, the auditor considered whether the allowance for doubtful accounts should be increased.)

Presentation and Disclosure Assertion

A-72. The auditor's assessment of control risk for this assertion was at the maximum. Financial statement presentation and related disclosures were reviewed in conjunction with the client's development of the financial statements and related footnotes.

Appendix B

The Relationship of the Auditor's Consideration of Internal Control to the Second Standard of Fieldwork and Other Audit Judgments and Procedures

B-1. In a financial statement audit, the auditor's consideration of internal control affects other decisions made throughout the audit. This appendix discusses other Statements on Auditing Standards with which the auditor should have familiarity to understand the second standard of fieldwork and provides a perspective on the relationship of the auditor's consideration of internal control to other audit considerations.

The Relationship of Other Statements on Auditing Standards to the Second Standard of Fieldwork

Audit Risk

B-2. SAS No. 47, *Audit Risk and Materiality in Conducting an Audit* (AICPA, *Professional Standards*, vol. 1, AU sec. 312) and SAS No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities* (AICPA, *Professional Standards*, vol. 1, AU sec. 316), provide professional guidance on the following:

- Audit risk
- The auditor's responsibility to detect and report errors and irregularities and to provide reasonable assurance that the financial statements are free of material misstatement.
- The auditor's consideration of the risk of material misstatement at the financial statement level and at the account balance and transaction class level

B-3. SAS No. 47 discusses audit risk and requires the auditor to evaluate control risk when planning the audit. Audit risk[1] is the risk that the auditor may unknowingly fail to appropriately modify his or her opinion on financial statements that are materially misstated.[2] At the account balance or class of

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[1] In addition to audit risk, the auditor is also exposed to loss or injury to his or her professional practice from litigation, adverse publicity, or other events arising in connection with financial statements that he or she has audited and reported on. This exposure is present even though the auditor has performed an audit in accordance with generally accepted auditing standards and has reported appropriately on those financial statements. Even if an auditor assesses this exposure as low, less extensive procedures than would otherwise be appropriate under generally accepted auditing standards should not be performed.

[2] This definition of audit risk does not include the risk that the auditor might erroneously conclude that the financial statements are materially misstated. In such a situation, he or she would ordinarily reconsider or extend his or her auditing procedures and request that the client perform specific tasks to reevaluate the appropriateness of the financial statements. These steps would ordinarily lead the auditor to the correct conclusion. This definition also excludes the risk of an inappropriate reporting decision unrelated to the detection and evaluation of misstatements in the financial statements, such as an inappropriate decision regarding the form of the auditor's report because of an uncertainty or limitation on the scope of the audit.

transactions level, audit risk consists of (*a*) the risk (consisting of inherent risk and control risk) that the balance or class contains misstatements that could be material to the financial statements when aggregated with misstatements in other balances or classes and (*b*) the risk (detection risk) that the auditor will not detect such misstatements. The discussion that follows describes audit risk in terms of three component risks. The way the auditor considers these component risks and combines them involves professional judgment and depends on his or her audit approach.

- Inherent risk is the susceptibility of an assertion to a material misstatement, assuming that there were no related controls.
- Control risk is the risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by the entity's internal control.
- Detection risk is the risk that the auditor will not detect a material misstatement that exists in an assertion.

B-4. SAS No. 53 explains the auditor's responsibility to detect errors and irregularities. The auditor should assess the risk that errors and irregularities may cause the financial statements to contain a material misstatement. Based on that assessment, the auditor should design the audit to provide reasonable assurance of detecting errors and irregularities that are material to the financial statements.[3,4] The auditor should consider the risk of material misstatement both at the financial statement level (including an assessment of the risk of management misrepresentation) and at the account balance or transaction class level.

B-5. Figure B-1 summarizes the combined guidance developed from SAS Nos. 47, 53, and 55 (as amended), providing some examples of inherent and control risk attributes that the auditor might consider and the audit decisions that might be affected. Inherent and control risks are not controlled by the auditor; rather, they are characteristics of the entity and are assessed by the auditor. After assessing inherent risk and control risk, the auditor considers a number of choices when designing and executing audit procedures.

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[3] The concept of reasonable assurance is recognized in the third standard of fieldwork: "Sufficient competent evidential matter is to be obtained through inspection, observation, inquiries, and confirmation to afford a reasonable basis for an opinion regarding the financial statements under audit" and is discussed in SAS No. 31, *Evidential Matter* (AICPA, *Professional Standards,* vol. 1, AU sec. 326) and SAS No. 39, *Audit Sampling* (AICPA, *Professional Standards,* vol. 1, AU sec. 350).

[4] The auditor's responsibility for detecting misstatements resulting from illegal acts having a direct and material effect on the determination of financial statement amounts, as defined in SAS No. 54, *Illegal Acts by Clients* (AICPA, *Professional Standards,* vol. 1, AU sec. 317), is the same as that for other errors and irregularities.

Figure B-1

ILLUSTRATION OF THE AUDIT RISK CONCEPT

	Example Attributes Considered by the Auditor		Responses by the Auditor
	Inherent Risk	**Control Risk**	**Detection Risk**
Matters Pervasive to Many Account Balances or Transaction Classes	• Profitability relative to the industry • Sensitivity of operating results to economic factors • Going concern problems • Nature, cause, and number of known and likely misstatements detected in the prior audit • Management turnover • Management reputation • Management accounting skills	• Business planning, budgeting, and monitoring of performance • Management attitude and actions regarding financial reporting • Management consultation with auditors • Management concern about external influences • Audit committee • Internal audit function • Personnel policies and practices • Effectiveness of the accounting system	• Overall audit strategy • Number of locations • Significant balances or transaction classes • Degree of professional skepticism • Staffing • Levels of supervision and review
Matters Pertaining to Specific Account Balances or Transaction Classes	• Difficult to audit accounts or transactions • Contentious or difficult accounting issues • Susceptibility to misappropriation • Complexity of calculations • Extent of judgment related to assertions • Sensitivity of valuations to economic factors • Nature, cause, and number of known and likely misstatements detected in the prior audit	• Effectiveness of the accounting system • Personnel policies and practices • Adequacy of accounting records • Segregation of duties • Adequacy of safeguards over assets and records (including software)	• Substantive analytical procedures and tests of details • Nature of tests • Timing of tests • Extent of tests

Auditors consider the types of factors presented above; however, it is not necessary to categorize such factors by type of risk.

B-6. An assessment of the risk of material misstatement should be made during planning: The factors considered in assessing risk should be considered in combination to make an overall judgment (SAS No. 53, paragraph 10). The auditor's overall judgment about the level of risk in an engagement may affect engagement staffing, extent of supervision, overall strategy for the expected conduct and scope of the audit, and degree of professional skepticism applied. For example, the auditor may decide to limit or expand the number of locations to be visited during the audit after considering the following factors:

- Materiality of operations at a location
- Nature of operations at a location
- Sensitivity of operating results to economic changes
- Turnover of key management
- Effectiveness of budgeting system in monitoring performance

B-7. The auditor considers inherent and control risks at the account balance and transaction class level because these risks directly affect the nature, timing, and extent of audit procedures. For example, the auditor may find recent employee turnover in the accounts receivable area, no formal training of new personnel, and liberal credit-granting policies. The auditor may respond by performing extensive substantive tests of the existence and valuation of accounts receivable at year end to obtain reasonable assurance that possible material misstatements are detected in the audit process.[5]

B-8. Audit risk—assessing inherent and control risks and designing an audit plan to achieve an appropriate level of detection risk—is a concept that is applied throughout the audit, both in developing an overall audit strategy and in planning specific audit procedures.

Assertions and Evidential Matter

B-9. Most of the auditor's work in forming an opinion on financial statements consists of obtaining and evaluating evidential matter concerning the assertions in the financial statements. SAS No. 31, *Evidential Matter* (AICPA, *Professional Standards*, vol. 1, AU sec. 326), presents assertions as representations by management that are embodied in financial statement components. In obtaining evidential matter in support of financial statement assertions, the auditor develops specific audit objectives in light of those assertions. There is not necessarily a one-to-one relationship between audit objectives and audit procedures.

B-10. Assertions are classified in SAS No. 31 according to the following broad categories:

- Existence or occurrence: Reported assets and liabilities of the entity exist at the balance-sheet date, and transactions reported in the income statement actually occurred during a given period.
- Completeness: All transactions and accounts that should be presented in the financial statements are so included.
- Rights and obligations: The company owns and has title to assets, and liabilities are the obligation of the company.
- Valuation or allocation: The assets and liabilities are valued properly, and the revenues and expenses are measured properly.

[5] The auditor should also consider the aggregate of misstatements that, taken together, could cause the financial statements to be materially misstated.

- Presentation and disclosure: The assets, liabilities, revenues, and expenses are properly classified, described, and disclosed in the financial statements.

B-11. The auditor should assess control risk in terms of assertions for material components of the financial statements. Some auditors accomplish this assessment by identifying controls and relating them to audit objectives for account balances or transaction classes. SAS No. 55 does not preclude or require any specific approach as long as control risk is ultimately assessed at the assertion level.

Audit Sampling and Tests of Controls

B-12. The decision to apply audit sampling to tests of controls is a matter of professional judgment. For many tests of controls, sampling does not apply. Procedures performed to obtain an understanding of internal control sufficient to plan an audit do not involve sampling.[6] Sampling generally is not applicable to tests of controls that depend primarily on appropriate segregation of duties or that otherwise provide no documentary evidence of performance. In addition, sampling may not apply to tests of certain documented controls. Sampling may not apply to tests directed toward obtaining evidence about the design or operation of the control environment, risk assessment, or information and communication (for example, inquiry or observation of explanations of variances from budget when the auditor does not desire to estimate the rate of deviation from the prescribed control).

B-13. The auditor may choose to apply sampling to tests of monitoring (such as tests of the work of internal auditors) or to tests of certain documented control activities (such as control activities related to changes to existing computer programs and systems) for the purpose of estimating the rate of deviation from prescribed controls. SAS No. 39 discusses the auditor's considerations when sampling is used for tests of controls.

The Relationship of the Auditor's Consideration of Internal Control to Other Audit Judgments and Procedures

B-14. The objective of a financial statement audit is to express an opinion on whether the financial statements present fairly, in all material respects, an entity's financial position, results of operations, and cash flows, in conformity with generally accepted accounting principles. To accomplish this objective, the auditor assesses the risk that the financial statements contain material misstatements and plans and performs audit procedures to provide reasonable assurance that the financial statements are free of material misstatement.

B-15. Figure B-2 presents a view of the way in which the assessments of inherent and control risk influence some basic audit judgments and procedures in the process of the auditor's formation of an opinion on the financial statements taken as a whole. This is merely one depiction of the considerations in-

[6] The auditor often plans to perform tests of controls concurrently with obtaining an understanding of internal control for the purpose of estimating the rate of deviations from the prescribed controls in either the rate of such deviations or monetary amount of the related transactions. Sampling, as defined in SAS No. 39, *Audit Sampling* (AICPA, *Professional Standards*, vol. 1, AU sec. 350), applies to such tests of controls.

volved in an audit. This figure is intended neither to be a complete description of every step involved in reaching an opinion on the financial statements nor to imply a specific sequencing of steps in the performance of an audit. In addition, the judgments and procedures outlined in the figure are not discrete and may overlap. For example, an auditor may consider inherent and control risks at the financial statement level and at the account balance or transaction class level simultaneously. Further, the auditor may revise assessments of inherent and control risks (based on information discovered as a result of performing audit tests) and reconsider their effect on audit strategy or procedures throughout the audit.

Risk of Material Misstatement in the Financial Statements

Understanding the Entity's Business and Industry

B-16. SAS No. 22, *Planning and Supervision* (AICPA, *Professional Standards*, vol. 1, AU sec. 329), provides guidance on the auditor's understanding of the entity's business and the industry in which it operates. This understanding assists the auditor in—

- Assessing the risk of material misstatement in the financial statements.
- Making a judgment about the understanding of the entity's internal control necessary to plan the audit.
- Designing tests of controls and substantive tests.

This knowledge ordinarily includes—

- The nature of the entity's business, types of products and services, capital structure, related parties, locations, and production, distribution, and compensation methods.
- Matters affecting the industry in which the entity operates, such as economic conditions, government regulations, changes in technology, accounting practices common to the industry, and competitive conditions.
- Profitability of the entity relative to the industry, sensitivity of operating results to economic factors, and rate of change in the entity's industry.

Figure B-2

The Relationship of the Auditor's Consideration of Internal Control to Other Audit Considerations

[Appendix B paragraph numbers in brackets]

Consider Risk of Material Misstatement at the Financial Statement Level

- Obtain an understanding of the entity's business and industry [B-16—B-17]
- Make preliminary judgments about materiality [B-18]
- Perform analytical procedures [B-19]
- Obtain an understanding of the internal control structure relevant to the development of an overall audit strategy [B-20]
- Consider factors that affect the risk of material misstatement at the financial statement level [B-21—B-23]
- Develop an overall audit plan
  - —Engagement staffing and extent of supervision [B-24—B-25]
  - —Overall audit strategy for the expected conduct and scope of the audit [B-26]
  - —Degree of professional skepticism [B-27—B-28]

Consider Risk of Material Misstatement at the Account Balance and Class of Transactions Level

- Consider preliminary audit strategy for some or all assertions (and related audit objectives) applicable to significant account balances and classes of transactions [B-29]
- Obtain an understanding of the internal control relevant to the design of audit procedures [B-30]
- Obtain evidence about the operating effectiveness of relevant control and assess risk for relevant assertions [B-31]
  - —Procedures to obtain the sufficient understanding
  - —Planned tests of controls
- Reevaluate preliminary audit strategy [B-32—B-33]
  - —Consider a further reduction in the assessed level of control risk
  - —Consider whether the assessed level of control risk supports the level of substantive tests
- Design audit procedures to reflect the auditor's determination of the appropriate level of detection risk [B-34]
  - —Nature of substantive procedures
  - —Timing of substantive procedures
  - —Extent of substantive procedures

Execute Balance of Audit Plan

- **Perform substantive tests [B-35]**
- **Complete overall review [B-36]**
  - — Perform analytical procedures
  - — Evaluate fair presentation of the financial statements in accordance with generally accepted accounting principles
- **Form an opinion on the financial statements [B-37]**

NOTE: This figure is intended neither to present the only conceptual way to view an audit nor to imply a specific sequencing of audit steps in the performance of an audit.

B-17. Knowledge of an entity's business is ordinarily obtained through experience with the entity or its industry and inquiry of personnel at the entity. Working/papers from prior years may contain useful information about the nature of the business, organizational structure, operating characteristics, and transactions that may require special consideration. Other sources an auditor might consult include AICPA accounting and audit guides, industry publications, financial statements of other entities in the industry, textbooks, periodicals, and individuals knowledgeable about the industry.

Preliminary Judgment About Materiality for Audit Purposes

B-18. SAS No. 22 and SAS No. 47 require the auditor, in planning the audit, to consider, among other matters, a preliminary judgment about materiality levels for audit purposes.[7] Financial statements are considered to be materially misstated when they contain misstatements whose effect, individually or in the aggregate, is important enough to cause a reasonable user to conclude that they are not presented fairly in conformity with generally accepted accounting principles. The auditor's consideration of materiality is a matter of professional judgment and is influenced by the auditor's perception of the needs of a reasonable person who will rely on the financial statements.

Analytical Procedures

B-19. SAS No. 56, *Analytical Procedures* (AICPA, *Professional Standards* vol. 1, AU sec. 329), states that the purpose of applying analytical procedures in planning the audit is to assist in planning the nature, timing, and extent of auditing procedures that will be used to obtain evidential matter for specific account balances or transaction classes. To accomplish this, analytical procedures used in planning the audit should focus on—

- Enhancing the auditor's understanding of the client's business and transactions and events that have occurred since the last audit date.
- Identifying areas that may represent specific risks relevant to the audit.

Performing analytical procedures during audit planning assists the auditor in developing an overall audit strategy, including a preliminary audit strategy for significant assertions related to material account balances and transaction classes.

Understanding of Internal Control Relevant to the Development of an Overall Audit Strategy

B-20. The auditor's understanding of an entity's control environment, risk assessment, control activities, information and communication, and monitoring contributes significant information to the assessment of risk of material misstatement in the financial statements. Control environment factors (such as management's philosophy and operating style, ethics and integrity, or human resource policies and practices) have a bearing on the control consciousness of the organization, which in turn affects the overall risk of material misstatement in the financial statements. Assessing the risk of material misstatement in the financial statements requires an understanding of risk assessment, control activities, information and communication, and monitoring.

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[7] SAS No. 47 states that the auditor's preliminary judgments about materiality levels may or may not be quantified.

That understanding may influence the auditor's initial planning decisions about such matters as the number of locations to visit and account balances likely to require adjustment. For example, development of an overall audit strategy often requires an understanding of how computer activities are organized, the availability of data supporting financial statement transactions and balances, and the effect of computer processing on the reliability and accuracy of financial statement information. In addition, the fact that many supporting documents are at remote locations, whereas computer records are in a central location, may influence the auditor's decisions about the extent of the understanding and planned testing of computer control activities.

Considering Factors That Affect the Risk of Material Misstatement

B-21. An assessment of the risk of material misstatement should be made during audit planning. The auditor's understanding of internal control should either heighten or mitigate the auditor's concern about the risk of material misstatement. The factors considered in assessing risk should be considered in combination to make an overall judgment; the presence of some factors in isolation would not necessarily indicate increased risk. Factors such as management characteristics, operating and industry characteristics, or engagement characteristics[8] may be considered.

B-22. The size, complexity, and ownership characteristics of the entity have a significant influence on the risk factors considered to be important. For example, for a large entity, the auditor would ordinarily give consideration to factors that constrain improper conduct by senior management, such as the effectiveness of the board of directors, the audit committee, or others with equivalent authority and responsibility, and the internal audit function. Consideration would also be given to the measures taken to enforce a formal code of conduct and the effectiveness of the budgeting or responsibility reporting system. For a small entity, some of these matters might be considered inapplicable or unimportant, particularly if the auditor's past experience with the entity has been that effective owner-manager or trustee involvement creates a good control environment. The auditor should assess the risk of management misrepresentation by reviewing information obtained about risk factors and internal control.[9]

B-23. The auditor should consider the effect of the matters described in this section on the overall audit strategy and the expected conduct and scope of the audit.

Overall Audit Plan

B-24. The auditor's overall judgment about the level of risk in an engagement may affect engagement staffing, extent of supervision, overall strategy for the expected conduct and scope of the audit, and degree of professional skepticism applied.

B-25. The experience and training of personnel assigned significant engagement responsibilities should be commensurate with the auditor's assessment of the level of risk for the engagement. Ordinarily, higher risk requires more experienced personnel or more extensive supervision by the auditor who has final responsibility for the engagement during both its planning and performance.

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[8] SAS No. 53, paragraph 10, provides additional guidance on factors the auditor should consider.

[9] SAS No. 53, paragraph 12, provides examples of these risk factors.

B-26. In planning the overall audit strategy, the auditor should consider the risk of material misstatement in significant account balances and transaction classes. When the risk of material misstatement is considered high, the auditor needs more assurance from substantive tests to restrict detection risk to an acceptable level. For example, a high risk of material misstatement may affect decisions about balances, transaction classes, lines of business, the number of locations that need audit attention, or the need to perform audit tests as of year end.

B-27. The auditor should apply professional skepticism in determining the evidential matter necessary to express an opinion on the financial statements. The auditor assumes neither that management is dishonest nor that it is unquestionably honest. Rather, the auditor recognizes that conditions observed and evidential matter obtained, including information from previous audits, need to be objectively evaluated to determine whether the financial statements are free of material misstatement.

B-28. Whenever the auditor has reached a conclusion that there is significant risk of material misstatement of the financial statements, he or she reacts in one or more ways. The auditor should consider this assessment in determining the nature, timing, or extent of procedures, assigning staff, or requiring appropriate levels of supervision. The auditor may identify specific transactions involving senior management, confirm the details with appropriate external parties, and review in detail all material accounting entries prepared or approved by senior management. The auditor should consider whether accounting policies are acceptable in the circumstances. When evaluation at the financial statement level indicates significant risk, the auditor requires more or different evidence to support material transactions than would be required in the absence of such risk.

Risk Assessment at the Account Balance and Transaction Class Level

Considering the Preliminary Audit Strategy for Significant Assertions Applicable to Material Account Balances and Transaction Classes

B-29. The auditor's ultimate objective in planning and performing a financial statement audit is to reduce audit risk to an appropriately low level. Because of the interrelationships between inherent risk, control risk, and detection risk, the auditor often will be able to choose between several possible audit approaches for an assertion applicable to a material account balance or transaction class. When considering a preliminary audit strategy for an assertion, the auditor makes an overall judgment about the audit approach that will reduce audit risk to an appropriately low level, as well as considering audit efficiency. (The auditor's preliminary audit strategy is discussed in greater detail in paragraphs 2.02 through 2.08.)

Understanding Internal Control Relevant to the Design of Audit Procedures

B-30. The auditor's understanding of internal control may depend on his or her judgments about a preliminary audit strategy. The flowchart presented in figure 1-2 recognizes two different audit strategies that the auditor may follow for one or more assertions related to each significant account balance and class of transaction. The strategies involve obtaining either:

- An understanding that is sufficient to plan a primarily substantive approach (paragraphs 2.13 through 2.84), or
- An understanding sufficient to plan a lower assessed level of control risk. This strategy places more emphasis on planning and performing tests of controls, and less emphasis on substantive tests (paragraphs 2.85 through 2.110).

Obtaining Evidence About the Operating Effectiveness of Relevant Internal Controls and Assessing Risk for Relevant Assertions

B-31. For some assertions, the auditor may consider a strategy of obtaining the understanding considered sufficient to plan a primarily substantive approach. Even though some of the procedures performed to obtain the understanding may not have been specifically planned as tests of controls, they may also provide evidential matter about the effectiveness of both the design and operation of controls relevant to certain assertions and, consequently, serve as tests of controls. (Chapter 3 discusses and provides examples of how procedures performed to obtain the understanding may be tests of controls. If the planned assessed level of control risk is lower than that which may be supported by procedures performed to obtain the understanding for a primarily substantive approach, the auditor should plan to perform tests of controls to support the desired control risk assessment. Chapter 3 also discusses and provides examples of the assurance provided by tests of controls to support a lower assessed level of control risk.)

Reevaluating the Preliminary Audit Strategy

B-32. The auditor should consider the implications of evidence obtained from analytical procedures and tests of controls for planned audit risk assessments. This may cause a modification or refinement of substantive tests, resulting in a more effective or efficient audit. For example, evidence of inconsistent application of a control activity may cause the auditor to revise a planned control risk assessment and reconsider preliminary decisions about the nature, timing, or extent of substantive tests to be performed.

B-33. The auditor may decide to perform additional tests of controls relevant to certain assertions after assessing the evidence provided by tests of controls already performed. If additional evidential matter is available, and it would improve audit efficiency to support a further reduction in the assessed level of control risk (and therefore plan a higher level of detection risk when designing substantive procedures for particular assertions), the auditor may perform additional tests of controls. (Paragraph 4.02 provides a discussion of the auditor's reasons for reevaluating the preliminary audit strategy.)

Design Audit Procedures to Reflect the Auditor's Determination of an Appropriate Level of Detection Risk

B-34. The auditor's conclusions about control risk may affect the subsequent design of the nature, timing, and extent of substantive tests (paragraphs 4.10 through 4.22).

Execution of the Balance of the Audit Plan

Perform Substantive Tests

B-35. The auditor performs substantive tests to detect material misstatements in an account balance or transaction class, or in disclosure components

of the financial statements. When a difference between the accounting records and the underlying facts and circumstances is found, the auditor should consider whether it is indicative of material errors or irregularities and consider the quantitative and qualitative implications and the implications related to previous inherent and control risk assessments.

Overall Review

B-36. In the overall review, the auditor considers the adequacy of evidence and evaluates the overall fair presentation in the financial statements. The auditor reads the financial statements and notes and considers the sufficiency and competence of evidence gathered, performs analytical procedures, and considers unusual or unexpected balances or relationships not previously identified. Results of the overall review stage may indicate that additional evidence may be needed.

Form an Opinion on the Financial Statements

B-37. When, in the auditor's judgment, sufficient and competent evidence has been obtained, an opinion on the financial statements taken as a whole can be formed.

Appendix C

*AU Section 319: Consideration of Internal Control in a Financial Statement Audit**

Source: SAS No. 55; SAS No. 78**

Effective for audits of financial statements for periods beginning on or after January 1, 1997, unless otherwise indicated.

Introduction

.01 This section provides guidance on the independent auditor's consideration of an entity's internal control in an audit of financial statements in accordance with generally accepted auditing standards. It defines internal control,[1] describes the objectives and components of internal control, and explains how an auditor should consider internal control in planning and performing an audit. In particular, this section provides guidance about implementing the second standard of field work[2]: "A sufficient understanding of internal control is to be obtained to plan the audit and to determine the nature, timing, and extent of tests to be performed."

.02 In all audits, the auditor should obtain an understanding of internal control sufficient to plan the audit by performing procedures to understand the design of controls relevant to an audit of financial statements, and whether they have been placed in operation.

.03 After obtaining this understanding, the auditor assesses control risk for the assertions embodied in the account balance, transaction class, and disclosure components of the financial statements. The auditor may assess control risk at the maximum level (the greatest probability that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by an entity's internal control) because he or she believes controls are unlikely to pertain to an assertion, are unlikely to be effective, or because evaluating their effectiveness would be inefficient. Alternatively, the auditor may obtain evidential matter about the effectiveness of both the design and operation of a control that supports a lower assessed level of control risk. Such evidential matter may be obtained from tests of controls planned or performed concurrently with obtaining the understanding or from procedures performed to obtain the understanding that were not specifically planned as tests of controls.

.04 After obtaining the understanding and assessing control risk, the auditor may desire to seek a further reduction in the assessed level of control

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* Reprinted from AICPA, *Professional Standards*, volume 1, AU section 319.

** The amendments to section 319.01, .02, .06 through .22, and the appendix [paragraph .84], are made to recognize the definition and description of internal control contained in *Internal Control—Integrated Framework*, published by the Committee of Sponsoring Organizations of the Treadway Commission, © 1992.

[1] Internal control also may be referred to as internal control structure.

[2] This section revises the second standard of field work of the ten generally accepted auditing standards.

risk for certain assertions. In such cases, the auditor considers whether evidential matter sufficient to support a further reduction is likely to be available and whether performing additional tests of controls to obtain such evidential matter would be efficient.

.05 The auditor uses the knowledge provided by the understanding of internal control and the assessed level of control risk in determining the nature, timing, and extent of substantive tests for financial statement assertions.

Definition of Internal Control

.06 *Internal control* is a process—effected by an entity's board of directors, management, and other personnel—designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (*a*) reliability of financial reporting, (*b*) effectiveness and efficiency of operations, and (*c*) compliance with applicable laws and regulations.

.07 Internal control consists of five interrelated components, which are:

a. *Control environment* sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure.

b. *Risk assessment* is the entity's identification and analysis of relevant risks to achievement of its objectives, forming a basis for determining how the risks should be managed.

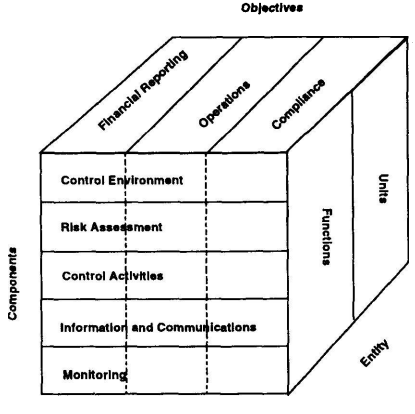
c. *Control activities* are the policies and procedures that help ensure that management directives are carried out.

d. *Information and communication* are the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities.

e. *Monitoring* is a process that assesses the quality of internal control performance over time.

Relationship Between Objectives and Components

.08 There is a direct relationship between objectives, which are what an entity strives to achieve, and components, which represent what is needed to achieve the objectives. In addition, internal control is relevant to the entire entity, or to any of its operating units or business functions. This relationship is depicted as follows:



.09 Although an entity's internal control addresses objectives in each of the categories referred to in paragraph .06, not all of these objectives and related controls are relevant to an audit of the entity's financial statements. Also, although internal control is relevant to the entire entity or to any of its operating units or business functions, an understanding of internal control relevant to each of the entity's operating units and business functions may not be necessary.

Financial Reporting Objective

.10 Generally, controls that are relevant to an audit pertain to the entity's objective of preparing financial statements for external purposes that are fairly presented in conformity with generally accepted accounting principles or a comprehensive basis of accounting other than generally accepted accounting principles.[3]

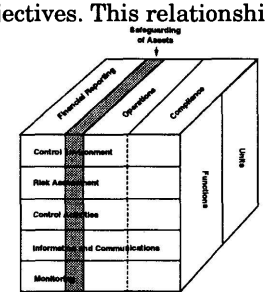
Operations and Compliance Objectives

.11 The controls relating to operations and compliance[4] objectives may be relevant to an audit if they pertain to data the auditor evaluates or uses in applying auditing procedures. For example, controls pertaining to nonfinancial data that the auditor uses in analytical procedures, such as production statistics, or pertaining to detecting noncompliance with laws and regulations that may have a direct and material effect on the financial statements, such as controls over compliance with income tax laws and regulations used to determine the income tax provision, may be relevant to an audit.

.12 An entity generally has controls relating to objectives that are not relevant to an audit and therefore need not be considered. For example, controls concerning compliance with health and safety regulations or concerning the effectiveness and efficiency of certain management decision-making processes (such as the appropriate price to charge for its products or whether to make expenditures for certain research and development or advertising activities), although important to the entity, ordinarily do not relate to a financial statement audit.

Safeguarding of Assets

.13 Internal control over safeguarding of assets against unauthorized acquisition, use, or disposition may include controls relating to financial reporting and o erations objectives. This relationshi is de icted as follows:



[3] The term *comprehensive basis of accounting other than generally accepted accounting principles* is defined in section 623, *Special Reports*, paragraph .04. Hereafter, reference to generally accepted accounting principles in this section includes, where applicable, an other comprehensive basis of accounting.

[4] An auditor may need to consider controls relevant to compliance objectives when performing an audit in accordance with section 801, *Compliance Auditing Considerations in Audits of Governmental Entities and Recipients of Governmental Financial Assistance*.

In obtaining an understanding of each of the components of internal control to plan the audit, the auditor's consideration of safeguarding controls is generally limited to those relevant to the reliability of financial reporting. For example, use of a lockbox system for collecting cash or passwords for limiting access to accounts receivable data files may be relevant to a financial statement audit. Conversely, controls to prevent the excess use of materials in production generally are not relevant to a financial statement audit.

Application of Components to a Financial Statement Audit

.14 The division of internal control into five components provides a useful framework for auditors to consider the impact of an entity's internal control in an audit. However, it does not necessarily reflect how an entity considers and implements internal control. Also, the auditor's primary consideration is whether a specific control affects financial statement assertions rather than its classification into any particular component.

.15 The five components of internal control are applicable to the audit of every entity. The components should be considered in the context of—

- The entity's size.
- The entity's organization and ownership characteristics.
- The nature of the entity's business.
- The diversity and complexity of the entity's operations.
- The entity's methods of transmitting, processing, maintaining, and accessing information.
- Applicable legal and regulatory requirements.

Limitations of an Entity's Internal Control

.16 Internal control, no matter how well designed and operated, can provide only reasonable assurance to management and the board of directors regarding achievement of an entity's control objectives. The likelihood of achievement is affected by limitations inherent to internal control. These include the realities that human judgment in decision-making can be faulty and that breakdowns in internal control can occur because of such human failures as simple error or mistake. Additionally, controls can be circumvented by the collusion of two or more people or management override of internal control.

.17 Another limiting factor is that the cost of an entity's internal control should not exceed the benefits that are expected to be derived. Although the cost-benefit relationship is a primary criterion that should be considered in designing internal control, the precise measurement of costs and benefits usually is not possible. Accordingly, management makes both quantitative and qualitative estimates and judgments in evaluating the cost-benefit relationship.

.18 Custom, culture, and the corporate governance system may inhibit irregularities by management, but they are not absolute deterrents. An effective control environment, too, may help mitigate the probability of such irregularities. For example, an effective board of directors, audit committee, and internal audit function may constrain improper conduct by management. Alternatively, the control environment may reduce the effectiveness of other components. For example, when the presence of management incentives creates an environment that could result in material misstatement of financial

statements, the effectiveness of control activities may be reduced. The effectiveness of an entity's internal control might also be adversely affected by such factors as a change in ownership or control, changes in management or other personnel, or developments in the entity's market or industry.

Consideration of Internal Control in Planning an Audit

.19 In all audits, the auditor should obtain an understanding of each of the five components of internal control sufficient to plan the audit by performing procedures to understand the design of controls relevant to an audit of financial statements, and whether they have been placed in operation. In planning the audit, such knowledge should be used to—

- Identify types of potential misstatement.
- Consider factors that affect the risk of material misstatement.
- Design substantive tests.

.20 The nature, timing, and extent of procedures the auditor chooses to perform to obtain the understanding will vary depending on the size and complexity of the entity, previous experience with the entity, the nature of the specific controls involved, and the nature of the entity's documentation of specific controls. For example, the understanding of risk assessment needed to plan an audit for an entity operating in a relatively stable environment may be limited. Also, the understanding of monitoring needed to plan an audit for a small, noncomplex entity may be limited.

.21 Whether a control has been *placed in operation* is different from its *operating effectiveness*. In obtaining knowledge about whether controls have been placed in operation, the auditor determines that the entity is using them. Operating effectiveness, on the other hand, is concerned with how the control was applied, the consistency with which it was applied, and by whom it was applied. For example, a budgetary reporting system may provide adequate reports, but the reports may not be analyzed and acted on. This section does not require the auditor to obtain knowledge about operating effectiveness as part of the understanding of internal control.

.22 The auditor's understanding of internal control may sometimes raise doubts about the auditability of an entity's financial statements. Concerns about the integrity of the entity's management may be so serious as to cause the auditor to conclude that the risk of management misrepresentation in the financial statements is such that an audit cannot be conducted. Concerns about the nature and extent of an entity's records may cause the auditor to conclude that it is unlikely that sufficient competent evidential matter will be available to support an opinion on the financial statements.

Understanding Internal Control

.23 In making a judgment about the understanding of internal control necessary to plan the audit, the auditor considers the knowledge obtained from other sources about the types of misstatement that could occur, the risk that such misstatements may occur, and the factors that influence the design of substantive tests. Other sources of such knowledge include previous audits and the understanding of the industry in which the entity operates. The auditor also considers his or her assessment of inherent risk, judgments about materiality, and the complexity and sophistication of the entity's operations and systems, including whether the method of controlling information processing

is based on manual procedures independent of the computer or is highly dependent on computerized controls. As an entity's operations and systems become more complex and sophisticated, it may be necessary to devote more attention to internal control components to obtain the understanding of them that is necessary to design effective substantive tests.

.24 Paragraphs .25 through .40 provide an overview of the five internal control components and the auditor's understanding of the components relating to a financial statement audit. A more detailed discussion of these components is provided in appendix A [paragraph .84].

Control Environment

.25 The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the following:

a. Integrity and ethical values

b. Commitment to competence

c. Board of directors or audit committee participation

d. Management's philosophy and operating style

e. Organizational structure

f. Assignment of authority and responsibility

g. Human resource policies and practices

.26 The auditor should obtain sufficient knowledge of the control environment to understand management's and the board of directors' attitude, awareness, and actions concerning the control environment, considering both the substance of controls and their collective effect. The auditor should concentrate on the substance of controls rather than their form, because controls may be established but not acted upon. For example, management may establish a formal code of conduct but act in a manner that condones violations of that code.

.27 When obtaining an understanding of the control environment, the auditor considers the collective effect on the control environment of strengths and weaknesses in various control environment factors. Management's strengths and weaknesses may have a pervasive effect on internal control. For example, owner-manager controls may mitigate a lack of segregation of duties in a small business, or an active and independent board of directors may influence the philosophy and operating style of senior management in larger entities. However, human resource policies and practices directed toward hiring competent financial and accounting personnel may not mitigate a strong bias by top management to overstate earnings.

Risk Assessment

.28 An entity's risk assessment for financial reporting purposes is its identification, analysis, and management of risks relevant to the preparation of financial statements that are fairly presented in conformity with generally accepted accounting principles. For example, risk assessment may address how the entity considers the possibility of unrecorded transactions or identifies and analyzes significant estimates recorded in the financial statements. Risks relevant to reliable financial reporting also relate to specific events or transactions.

.29 Risks relevant to financial reporting include external and internal events and circumstances that may occur and adversely affect an entity's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. [5] Risks can arise or change due to circumstances such as the following:

- Changes in operating environment
- New personnel
- New or revamped information systems
- Rapid growth
- New technology
- New lines, products, or activities
- Corporate restructurings
- Foreign operations
- Accounting pronouncements

.30 The auditor should obtain sufficient knowledge of the entity's risk assessment process to understand how management considers risks relevant to financial reporting objectives and decides about actions to address those risks. This knowledge might include understanding how management identifies risks, estimates the significance of the risks, assesses the likelihood of their occurrence, and relates them to financial reporting.

.31 An entity's risk assessment differs from the auditor's consideration of audit risk in a financial statement audit. The purpose of an entity's risk assessment is to identify, analyze, and manage risks that affect entity objectives. In a financial statement audit, the auditor assesses inherent and control risks to evaluate the likelihood that material misstatements could occur in the financial statements.

Control Activities

.32 Control activities are the policies and procedures that help ensure that management directives are carried out. They help ensure that necessary actions are taken to address risks to achievement of the entity's objectives. Control activities have various objectives and are applied at various organizational and functional levels. Generally, control activities that may be relevant to an audit may be categorized as policies and procedures that pertain to the following:

- Performance reviews
- Information processing
- Physical controls
- Segregation of duties

.33 The auditor should obtain an understanding of those control activities relevant to planning the audit. As the auditor obtains an understanding of the other components he or she is also likely to obtain knowledge about some control activities. For example, in obtaining an understanding of the documents, records, and processing steps in the financial reporting information system that pertain to cash, the auditor is likely to become aware of whether bank accounts are reconciled. The auditor should consider the knowledge about the presence or absence of control activities obtained from the understanding of the other components in determining whether it is necessary to devote addi-

[5] These assertions are discussed in section 326, *Evidential Matter*.

tional attention to obtaining an understanding of control activities to plan the audit. Ordinarily, audit planning does not require an understanding of the control activities related to each account balance, transaction class, and disclosure component in the financial statements or to every assertion relevant to them.

Information and Communication

.34 The information system relevant to financial reporting objectives, which includes the accounting system, consists of the methods and records established to record, process, summarize, and report entity transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity. The quality of system-generated information affects management's ability to make appropriate decisions in controlling the entity's activities and to prepare reliable financial reports.

.35 Communication involves providing an understanding of individual roles and responsibilities pertaining to internal control over financial reporting.

.36 The auditor should obtain sufficient knowledge of the information system relevant to financial reporting to understand—

- The classes of transactions in the entity's operations that are significant to the financial statements.
- How those transactions are initiated.
- The accounting records, supporting information, and specific accounts in the financial statements involved in the processing and reporting of transactions.
- The accounting processing involved from the initiation of a transaction to its inclusion in the financial statements, including electronic means (such as computers and electronic data interchange) used to transmit, process, maintain, and access information.
- The financial reporting process used to prepare the entity's financial statements, including significant accounting estimates and disclosures.

In addition, the auditor should obtain sufficient knowledge of the means the entity uses to communicate financial reporting roles and responsibilities and significant matters relating to financial reporting.

Monitoring

.37 An important management responsibility is to establish and maintain internal control. Management monitors controls to consider whether they are operating as intended and that they are modified as appropriate for changes in conditions.

.38 Monitoring is a process that assesses the quality of internal control performance over time. It involves assessing the design and operation of controls on a timely basis and taking necessary corrective actions. This process is accomplished through ongoing activities, separate evaluations or by various combinations of the two. In many entities, internal auditors or personnel performing similar functions contribute to the monitoring of an entity's activities. Monitoring activities may include using information from communications from external parties such as customer complaints and regulator comments that may indicate problems or highlight areas in need of improvement.

.39 The auditor should obtain sufficient knowledge of the major types of activities the entity uses to monitor internal control over financial reporting, including how those activities are used to initiate corrective actions. When obtaining an understanding of the internal audit function, the auditor should follow the guidance in paragraphs .04 through .08 of section 322, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements.*

Application to Small and Midsized Entities

.40 As indicated in paragraph .15, the way internal control components apply will vary based on an entity's size and complexity, among other considerations. Specifically, small and midsized entities may use less formal means to ensure that internal control objectives are achieved. For example, smaller entities with active management involvement in the financial reporting process may not have extensive descriptions of accounting procedures, sophisticated information systems, or written policies. Smaller entities may not have a written code of conduct but, instead, develop a culture that emphasizes the importance of integrity and ethical behavior through oral communication and by management example. Similarly, smaller entities may not have an independent or outside member on their board of directors. However, these conditions may not affect the auditor's assessment of control risk. When small or midsized entities are involved in complex transactions or are subject to legal and regulatory requirements also found in larger entities, more formal means of ensuring that internal control objectives are achieved may be present.

Procedures to Obtain Understanding

.41 In obtaining an understanding of controls that are relevant to audit planning, the auditor should perform procedures to provide sufficient knowledge of the design of the relevant controls pertaining to each of the five internal control components and whether they have been placed in operation. This knowledge is ordinarily obtained through previous experience with the entity and procedures such as inquiries of appropriate management, supervisory, and staff personnel; inspection of entity documents and records; and observation of entity activities and operations. The nature and extent of the procedures performed generally vary from entity to entity and are influenced by the size and complexity of the entity, the auditor's previous experience with the entity, the nature of the particular control, and the nature of the entity's documentation of specific controls.

.42 For example, the auditor's prior experience with the entity may provide an understanding of its classes of transactions. Inquiries of appropriate entity personnel and inspection of documents and records, such as source documents, journals, and ledgers, may provide an understanding of the accounting records designed to process those transactions and whether they have been placed in operation. Similarly, in obtaining an understanding of the design of computer-programmed control activities and whether they have been placed in operation, the auditor may make inquiries of appropriate entity personnel and inspect relevant systems documentation to understand control activity design and may inspect exception reports generated as a result of such control activities to determine that they have been placed in operation.

.43 The auditor's assessments of inherent risk and judgments about materiality for various account balances and transaction classes also affect the nature and extent of the procedures performed to obtain the understanding. For example, the auditor may conclude that planning the audit of the prepaid insurance account does not require specific procedures to be included in obtaining the understanding of internal control.

Documentation of Understanding

.44 The auditor should document the understanding of the entity's internal control components obtained to plan the audit. The form and extent of this documentation is influenced by the size and complexity of the entity, as well as the nature of the entity's internal control. For example, documentation of the understanding of internal control of a large complex entity may include flowcharts, questionnaires, or decision tables. For a small entity, however, documentation in the form of a memorandum may be sufficient. Generally, the more complex internal control and the more extensive the procedures performed, the more extensive the auditor's documentation should be.

Consideration of Internal Control in Assessing Control Risk

.45 Section 326, *Evidential Matter*, states that most of the independent auditor's work in forming an opinion on financial statements consists of obtaining and evaluating evidential matter concerning the assertions in such financial statements. These assertions are embodied in the account balance, transaction class, and disclosure components of financial statements and are classified according to the following broad categories:

- Existence or occurrence
- Completeness
- Rights and obligations
- Valuation or allocation
- Presentation and disclosure

In planning and performing an audit, an auditor considers these assertions in the context of their relationship to a specific account balance or class of transactions.

.46 The risk of material misstatement[6] in financial statement assertions consists of inherent risk, control risk, and detection risk. Inherent risk is the susceptibility of an assertion to a material misstatement assuming there are no related controls. Control risk is the risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by the entity's internal control. Detection risk is the risk that the auditor will not detect a material misstatement that exists in an assertion.

.47 Assessing control risk is the process of evaluating the effectiveness of an entity's internal control in preventing or detecting material misstatements in the financial statements. Control risk should be assessed in terms of financial statement assertions. After obtaining the understanding of internal control, the auditor may assess control risk at the maximum level for some or all assertions because he or she believes controls are unlikely to pertain to an assertion, are unlikely to be effective, or because evaluating their effectiveness would be inefficient.[7]

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[6] For purposes of this section, a material misstatement in a financial statement assertion is an error or irregularity as defined in section 316, *The Auditor's Responsibility to Detect and Report Errors and Irregularities*, that either individually or when aggregated with other errors or irregularities in other assertions would be material to the financial statements taken as a whole.

[7] Control risk may be assessed in quantitative terms, such as percentages, or in nonquantitative terms that range, for example, from a maximum to a minimum. The term *maximum level* is used in this section to mean the greatest probability that a material misstatement that could occur in a financial statement assertion will not be prevented or detected on a timely basis by an entity's internal control.

.48 Assessing control risk at below the maximum level involves—

- Identifying specific controls relevant to specific assertions that are likely to prevent or detect material misstatements in those assertions.
- Performing tests of controls to evaluate the effectiveness of such controls.

.49 In identifying controls relevant to specific financial statement assertions, the auditor should consider that the controls can have either a pervasive effect on many assertions or a specific effect on an individual assertion, depending on the nature of the particular internal control component involved. For example, the conclusion that an entity's control environment is highly effective may influence the auditor's decision about the number of an entity's locations at which auditing procedures are to be performed or whether to perform certain auditing procedures for some account balances or transaction classes at an interim date. Either decision affects the way in which auditing procedures are applied to specific assertions, even though the auditor may not have specifically considered each individual assertion that is affected by such decisions.

.50 Conversely, some control activities often have a specific effect on an individual assertion embodied in a particular account balance or transaction class. For example, the control activities that an entity established to ensure that its personnel are properly counting and recording the annual physical inventory relate directly to the existence assertion for the inventory account balance.

.51 Controls can be either directly or indirectly related to an assertion. The more indirect the relationship, the less effective that control may be in reducing control risk for that assertion. For example, a sales manager's review of a summary of sales activity for specific stores by region ordinarily is indirectly related to the completeness assertion for sales revenue. Accordingly, it may be less effective in reducing control risk for that assertion than controls more directly related to that assertion, such as matching shipping documents with billing documents.

.52 Procedures directed toward either the effectiveness of the design or operation of a control are referred to as tests of controls. Tests of controls directed toward the effectiveness of the design of a control are concerned with whether that control is suitably designed to prevent or detect material misstatements in specific financial statement assertions. Tests to obtain such evidential matter ordinarily include procedures such as inquiries of appropriate entity personnel, inspection of documents and reports, and observation of the application of specific controls. For entities with complex internal control, the auditor should consider that the use of flowcharts, questionnaires, or decision tables might facilitate the application of tests of design.

.53 Tests of controls directed toward the operating effectiveness of a control are concerned with how the policy or procedure was applied, the consistency with which it was applied during the audit period, and by whom it was applied. These tests ordinarily include procedures such as inquiries of appropriate entity personnel; inspection of documents, reports, or electronic files, indicating performance of the control; observation of the application of the control; and reperformance of the application of the control by the auditor. In some circumstances, a specific procedure may address the effectiveness of both design and operation. However, a combination of procedures may be necessary to evaluate the effectiveness of the design or operation of a control.

.54 The conclusion reached as a result of assessing control risk is referred to as the assessed level of control risk. In determining the evidential matter necessary to support a specific assessed level of control risk at below the maximum level, the auditor should consider the characteristics of evidential matter about control risk discussed in paragraphs .64 through .78. Generally, however, the lower the assessed level of control risk, the greater the assurance the evidential matter must provide that the controls relevant to an assertion are designed and operating effectively.

.55 The auditor uses the assessed level of control risk (together with the assessed level of inherent risk) to determine the acceptable level of detection risk for financial statement assertions. The auditor uses the acceptable level of detection risk to determine the nature, timing, and extent of the auditing procedures to be used to detect material misstatements in the financial statement assertions. Auditing procedures designed to detect such misstatements are referred to in this section as substantive tests.

.56 As the acceptable level of detection risk decreases, the assurance provided from substantive tests should increase. Consequently, the auditor may do one or more of the following:

- Change the nature of substantive tests from a less effective to a more effective procedure, such as using tests directed toward independent parties outside the entity rather than tests directed toward parties or documentation within the entity.
- Change the timing of substantive tests, such as performing them at year end rather than at an interim date.
- Change the extent of substantive tests, such as using a larger sample size.

Documentation of the Assessed Level of Control Risk

.57 In addition to the documentation of the understanding of internal control discussed in paragraph .44, the auditor should document the basis for his or her conclusions about the assessed level of control risk. Conclusions about the assessed level of control risk may differ as they relate to various account balances or classes of transactions. However, for those financial statement assertions where control risk is assessed at the maximum level, the auditor should document his or her conclusion that control risk is at the maximum level but need not document the basis for that conclusion. For those assertions where the assessed level of control risk is below the maximum level, the auditor should document the basis for his or her conclusion that the effectiveness of the design and operation of controls supports that assessed level. The nature and extent of the auditor's documentation are influenced by the assessed level of control risk used, the nature of the entity's internal control, and the nature of the entity's documentation of internal control.

Relationship of Understanding to Assessing Control Risk

.58 Although understanding internal control and assessing control risk are discussed separately in this section, they may be performed concurrently in an audit. The objective of procedures performed to obtain an understanding of internal control (discussed in paragraphs .41 through .43) is to provide the auditor with knowledge necessary for audit planning. The objective of tests of

controls (discussed in paragraphs .52 and .53) is to provide the auditor with evidential matter to use in assessing control risk. However, procedures performed to achieve one objective may also pertain to the other objective.

.59 Based on the assessed level of control risk the auditor expects to support and audit efficiency considerations, the auditor often plans to perform some tests of controls concurrently with obtaining the understanding of internal control. In addition, even though some of the procedures performed to obtain the understanding may not have been specifically planned as tests of controls, they may also provide evidential matter about the effectiveness of both the design and operation of the controls relevant to certain assertions and, consequently, serve as tests of controls. For example, in obtaining an understanding of the control environment, the auditor may have made inquiries about management's use of budgets, observed management's comparison of monthly budgeted and actual expenses, and inspected reports pertaining to the investigation of variances between budgeted and actual amounts. Although these procedures provide knowledge about the design of the entity's budgeting policies and whether they have been placed in operation, they may also provide evidential matter about the effectiveness of the design and operation of budgeting policies in preventing or detecting material misstatements in the classification of expenses. In some circumstances, that evidential matter may be sufficient to support an assessed level of control risk that is below the maximum level for the presentation and disclosure assertions pertaining to expenses in the income statement.

.60 When the auditor concludes that procedures performed to obtain the understanding of internal control also provide evidential matter for assessing control risk, he or she should consider the guidance in paragraphs .64 through .78 in judging the degree of assurance provided by that evidential matter. Although such evidential matter may not provide sufficient assurance to support an assessed level of control risk that is below the maximum level for certain assertions, it may do so for other assertions and thus provide a basis for modifying the nature, timing, or extent of the substantive tests that the auditor plans for those assertions. However, such procedures are not sufficient to support an assessed level of control risk below the maximum level if they do not provide sufficient evidential matter to evaluate the effectiveness of both the design and operation of a control relevant to an assertion.

Further Reduction in the Assessed Level of Control Risk

.61 After obtaining the understanding of internal control and assessing control risk, the auditor may desire to seek a further reduction in the assessed level of control risk for certain assertions. In such cases, the auditor considers whether additional evidential matter sufficient to support a further reduction is likely to be available, and whether it would be efficient to perform tests of controls to obtain that evidential matter. The results of the procedures performed to obtain the understanding of the internal control, as well as pertinent information from other sources, help the auditor to evaluate those two factors.

.62 In considering efficiency, the auditor recognizes that additional evidential matter that supports a further reduction in the assessed level of control risk for an assertion would result in less audit effort for the substantive tests of that assertion. The auditor weighs the increase in audit effort associated with the additional tests of controls that is necessary to obtain such evidential matter against the resulting decrease in audit effort associated with the reduced substantive tests. When the auditor concludes it is inefficient to obtain additional evidential matter for specific assertions, the auditor uses the assessed level of control risk based on the understanding of internal control in planning the substantive tests for those assertions.

.63 For those assertions for which the auditor performs additional tests of controls, the auditor determines the assessed level of control risk that the results of those tests will support. This assessed level of control risk is used in determining the appropriate detection risk to accept for those assertions and, accordingly, in determining the nature, timing, and extent of substantive tests for such assertions.

Evidential Matter to Support the Assessed Level of Control Risk

.64 When the auditor assesses control risk at below the maximum level, he or she should obtain sufficient evidential matter to support that assessed level. The evidential matter[8] that is sufficient to support a specific assessed level of control risk is a matter of auditing judgment. Evidential matter varies substantially in the assurance it provides to the auditor as he or she develops an assessed level of control risk. The type of evidential matter, its source, its timeliness, and the existence of other evidential matter related to the conclusion to which it leads all bear on the degree of assurance evidential matter provides.

.65 These characteristics influence the nature, timing, and extent of the tests of controls that the auditor applies to obtain evidential matter about control risk. The auditor selects such tests from a variety of techniques such as inquiry, observation, inspection, and reperformance of a control that pertains to an assertion. No one specific test of controls is always necessary, applicable, or equally effective in every circumstance.

Type of Evidential Matter

.66 The nature of the particular controls that pertain to an assertion influences the type of evidential matter that is available to evaluate the effectiveness of the design or operation of those controls. For some controls, documentation of design or operation may exist. In such circumstances, the auditor may decide to inspect the documentation to obtain evidential matter about the effectiveness of design or operation.

.67 For other controls, however, such documentation may not be available or relevant. For example, documentation of design or operation may not exist for some factors in the control environment, such as assignment of authority and responsibility, or for some types of control activities, such as segregation of duties or some control activities performed by a computer. In such circumstances, evidential matter about the effectiveness of design or operation may be obtained through observation or the use of computer-assisted audit techniques to reperform the application of relevant controls.

Source of Evidential Matter

.68 Generally, evidential matter about the effectiveness of the design and operation of controls obtained directly by the auditor, such as through observation, provides more assurance than evidential matter obtained indirectly or by inference, such as through inquiry. For example, evidential matter about the proper segregation of duties that is obtained by the auditor's direct personal observation of the individual who applies a control generally provides more assurance than making inquiries about the individual. The auditor should consider, however, that the observed application of a control might not be performed in the same manner when the auditor is not present.

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[8] See also section 326 for guidance on evidential matter.

.69 Inquiry alone generally will not provide sufficient evidential matter to support a conclusion about the effectiveness of design or operation of a specific control. When the auditor determines that a specific control may have a significant effect in reducing control risk to a low level for a specific assertion, he or she ordinarily needs to perform additional tests to obtain sufficient evidential matter to support the conclusion about the effectiveness of the design or operation of that control.

Timeliness of Evidential Matter

.70 The timeliness of the evidential matter concerns when it was obtained and the portion of the audit period to which it applies. In evaluating the degree of assurance that is provided by evidential matter, the auditor should consider that the evidential matter obtained by some tests of controls, such as observation, pertains only to the point in time at which the auditing procedure was applied. Consequently, such evidential matter may be insufficient to evaluate the effectiveness of the design or operation of controls for periods not subjected to such tests. In such circumstances, the auditor may decide to supplement these tests with other tests of controls that are capable of providing evidential matter about the entire audit period. For example, for a control activity performed by a computer program, the auditor may test the operation of the control at a particular point in time to obtain evidential matter about whether the program executes the control effectively. The auditor may then perform tests of controls directed toward the design and operation of other control activities pertaining to the modification and the use of that computer program during the audit period to obtain evidential matter about whether the programmed control activity operated consistently during the audit period.

.71 Evidential matter about the effective design or operation of controls that was obtained in prior audits may be considered by the auditor in assessing control risk in the current audit. To evaluate the use of such evidential matter for the current audit, the auditor should consider the significance of the assertion involved, the specific controls that were evaluated during the prior audits, the degree to which the effective design and operation of those controls were evaluated, the results of the tests of controls used to make those evaluations, and the evidential matter about design or operation that may result from substantive tests performed in the current audit. The auditor should also consider that the longer the time elapsed since the performance of tests of controls to obtain evidential matter about control risk, the less assurance it may provide.

.72 When considering evidential matter obtained from prior audits, the auditor should obtain evidential matter in the current period about whether changes have occurred in internal control, including its policies, procedures, and personnel, subsequent to the prior audits, as well as the nature and extent of any such changes. Consideration of evidential matter about these changes, together with the considerations in the preceding paragraph, may support either increasing or decreasing the additional evidential matter about the effectiveness of design and operation to be obtained in the current period.

.73 When the auditor obtains evidential matter about the design or operation of controls during an interim period, he or she should determine what additional evidential matter should be obtained for the remaining period. In making that determination, the auditor should consider the significance of the assertion involved, the specific controls that were evaluated during the interim period, the degree to which the effective design and operation of those

controls were evaluated, the results of the tests of controls used to make that evaluation, the length of the remaining period, and the evidential matter about design or operation that may result from the substantive test performed in the remaining period. The auditor should obtain evidential matter about the nature and extent of any significant changes in internal control, including its policies, procedures, and personnel, that occur subsequent to the interim period.

Interrelationship of Evidential Matter

.74 The auditor should consider the combined effect of various types of evidential matter relating to the same assertion in evaluating the degree of assurance that evidential matter provides. In some circumstances, a single type of evidential matter may not be sufficient to evaluate the effective design or operation of a control. To obtain sufficient evidential matter in such circumstances, the auditor may perform other tests of controls pertaining to that control. For example, an auditor may observe that programmers are not authorized to operate the computer. Because an observation is pertinent only at the point in time at which it is made, the auditor may supplement the observation with inquiries about the frequency and circumstances under which programmers may have access to the computer and may inspect documentation of past instances when programmers attempted to operate the computer to determine how such attempts were prevented or detected.

.75 In addition, when evaluating the degree of assurance provided by evidential matter, the auditor should consider the interrelationship of an entity's control environment, risk assessment, control activities, information and communication, and monitoring. Although an individual internal control component may affect the nature, timing, or extent of substantive tests for a specific financial statement assertion, the auditor should consider the evidential matter about an individual component in relation to the evidential matter about the other components in assessing control risk for a specific assertion.

.76 Generally, when various types of evidential matter support the same conclusion about the design or operation of a control, the degree of assurance provided increases. Conversely, if various types of evidential matter lead to different conclusions about the design or operation of a control, the assurance provided decreases. For example, based on the evidential matter that the control environment is effective, the auditor may have reduced the number of locations at which auditing procedures will be performed. If, however, when evaluating specific control activities, the auditor obtains evidential matter that such activities are ineffective, he or she may reevaluate his or her conclusion about the control environment and, among other things, decide to perform auditing procedures at additional locations.

.77 Similarly, evidential matter indicating that the control environment is ineffective may adversely affect an otherwise effective control for a particular assertion. For example, a control environment that is likely to permit unauthorized changes in a computer program may reduce the assurance provided by evidential matter obtained from evaluating the effectiveness of the program at a particular point in time. In such circumstances, the auditor may decide to obtain additional evidential matter about the design and operation of that program during the audit period. For example, the auditor might obtain and control a copy of the program and use computer-assisted audit techniques to compare that copy with the program that the entity uses to process data.

.78 An audit of financial statements is a cumulative process; as the auditor assesses control risk, the information obtained may cause him or her to modify the nature, timing, or extent of the other planned tests of controls for assessing control risk. In addition, information may come to the auditor's attention as a result of performing substantive tests or from other sources during the audit that differs significantly from the information on which his or her planned tests of controls for assessing control risk were based. For example, the extent of misstatements that the auditor detects by performing substantive tests may alter his or her judgment about the assessed level of control risk. In such circumstances, the auditor may need to reevaluate the planned substantive procedures, based on a revised consideration of the assessed level of control risk for all or some of the financial statement assertions.

Correlation of Control Risk With Detection Risk

.79 The ultimate purpose of assessing control risk is to contribute to the auditor's evaluation of the risk that material misstatements exist in the financial statements. The process of assessing control risk (together with assessing inherent risk) provides evidential matter about the risk that such misstatements may exist in the financial statements. The auditor uses this evidential matter as part of the reasonable basis for an opinion referred to in the third standard of field work, which follows:

> Sufficient competent evidential matter is to be obtained through inspection, observation, inquiries, and confirmations to afford a reasonable basis for an opinion regarding the financial statements under audit.

.80 After considering the level to which he or she seeks to restrict the risk of a material misstatement in the financial statements and the assessed levels of inherent risk and control risk, the auditor performs substantive tests to restrict detection risk to an acceptable level. As the assessed level of control risk decreases, the acceptable level of detection risk increases. Accordingly, the auditor may alter the nature, timing, and extent of the substantive tests performed.

.81 Although the inverse relationship between control risk and detection risk may permit the auditor to change the nature or the timing of substantive tests or limit their extent, ordinarily the assessed level of control risk cannot be sufficiently low to eliminate the need to perform any substantive tests to restrict detection risk for all of the assertions relevant to significant account balances or transaction classes. Consequently, regardless of the assessed level of control risk, the auditor should perform substantive tests for significant account balances and transaction classes.

.82 The substantive tests that the auditor performs consist of tests of details of transactions and balances, and analytical procedures. In assessing control risk, the auditor also may use tests of details of transactions as tests of controls. The objective of tests of details of transactions performed as substantive tests is to detect material misstatements in the financial statements. The objective of tests of details of transactions performed as tests of controls is to evaluate whether a control operated effectively. Although these objectives are different, both may be accomplished concurrently through performance of a test of details on the same transaction. The auditor should recognize, however, that careful consideration should be given to the design and evaluation of such tests to ensure that both objectives will be accomplished.

Effective Date

.83 This section is effective for audits of financial statements for periods beginning on or after January 1, 1990. Paragraphs .01 to .40 and the appendix [paragraph .84] are effective for audits of financial statements for periods beginning on or after January 1, 1997. Early application of the provisions of this section is permissible.

.84

Appendix: Internal Control Components

1. This appendix discusses the five internal control components set forth in paragraph .07 and briefly described in paragraphs .25 through .40 as they relate to a financial statement audit.

Control Environment

2. The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure.

3. The control environment encompasses the following factors:

   a. *Integrity and ethical values.* The effectiveness of controls cannot rise above the integrity and ethical values of the people who create, administer, and monitor them. Integrity and ethical values are essential elements of the control environment, affecting the design, administration, and monitoring of other components. Integrity and ethical behavior are the product of the entity's ethical and behavioral standards, how they are communicated, and how they are reinforced in practice. They include management's actions to remove or reduce incentives and temptations that might prompt personnel to engage in dishonest, illegal, or unethical acts. They also include the communication of entity values and behavioral standards to personnel through policy statements and codes of conduct and by example.

   b. *Commitment to competence.* Competence is the knowledge and skills necessary to accomplish tasks that define the individual's job. Commitment to competence includes management's consideration of the competence levels for particular jobs and how those levels translate into requisite skills and knowledge.

   c. *Board of directors or audit committee participation.* An entity's control consciousness is influenced significantly by the entity's board of directors or audit committee. Attributes include the board or audit committee's independence from management, the experience and stature of its members, the extent of its involvement and scrutiny of activities, the appropriateness of its actions, the degree to which difficult questions are raised and pursued with management, and its interaction with internal and external auditors.

   d. *Management's philosophy and operating style.* Management's philosophy and operating style encompass a broad range of characteristics. Such characteristics may include the following: management's approach to taking and monitoring business risks; management's attitudes and actions toward financial reporting (conservative or aggressive selection from available alternative accounting principles, and conscientiousness and conservatism with which accounting estimates are developed); and management's attitudes toward information processing and accounting functions and personnel.

e. *Organizational structure.* An entity's organizational structure provides the framework within which its activities for achieving entitywide objectives are planned, executed, controlled, and monitored. Establishing a relevant organizational structure includes considering key areas of authority and responsibility and appropriate lines of reporting. An entity develops an organizational structure suited to its needs. The appropriateness of an entity's organizational structure depends, in part, on its size and the nature of its activities.

f. *Assignment of authority and responsibility.* This factor includes how authority and responsibility for operating activities are assigned and how reporting relationships and authorization hierarchies are established. It also includes policies relating to appropriate business practices, knowledge and experience of key personnel, and resources provided for carrying out duties. In addition, it includes policies and communications directed at ensuring that all personnel understand the entity's objectives, know how their individual actions interrelate and contribute to those objectives, and recognize how and for what they will be held accountable.

g. *Human resource policies and practices.* Human resource policies and practices relate to hiring, orientation, training, evaluating, counseling, promoting, compensating, and remedial actions. For example, standards for hiring the most qualified individuals—with emphasis on educational background, prior work experience, past accomplishments, and evidence of integrity and ethical behavior—demonstrate an entity's commitment to competent and trustworthy people. Training policies that communicate prospective roles and responsibilities and include practices such as training schools and seminars illustrate expected levels of performance and behavior. Promotions driven by periodic performance appraisals demonstrate the entity's commitment to the advancement of qualified personnel to higher levels of responsibility.

Application to Small and Midsized Entities

4. Small and midsized entities may implement the control environment factors differently than larger entities. For example, smaller entities might not have a written code of conduct but, instead, develop a culture that emphasizes the importance of integrity and ethical behavior through oral communication and by management example. Similarly, smaller entities may not have an independent or outside member on their board of directors. However, these conditions may not affect the auditor's assessment of control risk.

Risk Assessment

5. An entity's risk assessment for financial reporting purposes is its identification, analysis, and management of risks relevant to the preparation of financial statements that are fairly presented in conformity with generally accepted accounting principles. For example, risk assessment may address how the entity considers the possi-

bility of unrecorded transactions or identifies and analyzes significant estimates recorded in the financial statements. Risks relevant to reliable financial reporting also relate to specific events or transactions.

6. Risks relevant to financial reporting include external and internal events and circumstances that may occur and adversely affect an entity's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. Once risks are identified, management considers their significance, the likelihood of their occurrence, and how they should be managed. Management may initiate plans, programs, or actions to address specific risks or it may decide to accept a risk because of cost or other considerations. Risks can arise or change due to circumstances such as the following:
   - *Changes in operating environment.* Changes in the regulatory or operating environment can result in changes in competitive pressures and significantly different risks.
   - *New personnel.* New personnel may have a different focus on or understanding of internal control.
   - *New or revamped information systems.* Significant and rapid changes in information systems can change the risk relating to internal control.
   - *Rapid growth.* Significant and rapid expansion of operations can strain controls and increase the risk of a breakdown in controls.
   - *New technology. Incorporating new technologies into production processes or information systems may change the risk associated with internal control.*
   - *New lines, Products, or Activities.* Entering into business areas or transactions with which an entity has little experience may introduce new risks associated with internal control.
   - *Corporate restructurings.* Restructurings may be accompanied by staff reductions and changes in supervision and segregation of duties that may change the risk associated with internal control.
   - *Foreign operations.* The expansion or acquisition of foreign operations carries new and often unique risks that may impact internal control, for example, additional or changed risks from foreign currency transactions.
   - *Accounting pronouncements. Adoption of new accounting principles or changing accounting principles may affect risks in preparing financial statements.*

Application to Small and Midsized Entities

7. The basic concepts of the risk assessment process should be present in every entity, regardless of size, but the risk assessment process is likely to be less formal and less structured in small and midsized entities than in larger ones. All entities should have established financial reporting objectives, but they may be recognized implicitly rather than explicitly in smaller entities. Management may be able to learn about risks related to these objectives through direct personal involvement with employees and outside parties.

Control Activities

8. Control activities are the policies and procedures that help ensure that necessary actions are taken to address risks to achievement of the entity's objectives. Control activities have various objectives and are applied at various organizational and functional levels.
9. Generally, control activities that may be relevant to an audit may be categorized as policies and procedures that pertain to the following:
   - *Performance reviews.* These control activities include reviews of actual performance versus budgets, forecasts, and prior period performance; relating different sets of data—operating or financial—to one another, together with analyses of the relationships and investigative and corrective actions; and review of functional or activity performance, such as a bank's consumer loan manager's review of reports by branch, region, and loan type for loan approvals and collections.
   - *Information processing.* A variety of controls are performed to check accuracy, completeness, and authorization of transactions. The two broad groupings of information systems control activities are general controls and application controls. General controls commonly include controls over data center operations, system software acquisition and maintenance, access security, and application system development and maintenance. These controls apply to mainframe, minicomputer, and end-user environments. Application controls apply to the processing of individual applications. These controls help ensure that transactions are valid, properly authorized, and completely and accurately processed.
   - *Physical controls.* These activities encompass the physical security of assets, including adequate safeguards such as secured facilities, over access to assets and records; authorization for access to computer programs and data files; and periodic counting and comparison with amounts shown on control records. The extent to which physical controls intended to prevent theft of assets are relevant to the reliability of financial statement preparation, and therefore the audit, depends on the circumstances such as when assets are highly susceptible to misappropriation. For example, these controls would ordinarily not be relevant when any inventory losses would be detected pursuant to periodic physical inspection and recorded in the financial statements. However, if for financial reporting purposes management relies solely on perpetual inventory records, the physical security controls would be relevant to the audit.
   - *Segregation of duties.* Assigning different people the responsibilities of authorizing transactions, recording transactions, and maintaining custody of assets is intended to reduce the opportunities to allow any person to be in a position to both perpetrate and conceal errors or irregularities in the normal course of his or her duties.

Application to Small and Midsized Entities

10. The concepts underlying control activities in small or midsized organizations are likely to be similar to those in larger entities, but the formality with which they operate varies. Further, smaller entities may find that certain types of control activities are not relevant

because of controls applied by management. For example, management's retention of authority for approving credit sales, significant purchases, and draw-downs on lines of credit can provide strong control over those activities, lessening or removing the need for more detailed control activities. An appropriate segregation of duties often appears to present difficulties in smaller organizations. Even companies that have only a few employees, however, may be able to assign their responsibilities to achieve appropriate segregation or, if that is not possible, to use management oversight of the incompatible activities to achieve control objectives.

Information and Communication

11. The information system relevant to financial reporting objectives, which includes the accounting system, consists of the methods and records established to record, process, summarize, and report entity transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity. The quality of system-generated information affects management's ability to make appropriate decisions in managing and controlling the entity's activities and to prepare reliable financial reports.
12. An information system encompasses methods and records that—
    - Identify and record all valid transactions.
    - Describe on a timely basis the transactions in sufficient detail to permit proper classification of transactions for financial reporting.
    - Measure the value of transactions in a manner that permits recording their proper monetary value in the financial statements.
    - Determine the time period in which transactions occurred to permit recording of transactions in the proper accounting period.
    - Present properly the transactions and related disclosures in the financial statements.
13. Communication involves providing an understanding of individual roles and responsibilities pertaining to internal control over financial reporting. It includes the extent to which personnel understand how their activities in the financial reporting information system relate to the work of others and the means of reporting exceptions to an appropriate higher level within the entity. Open communication channels help ensure that exceptions are reported and acted on.
14. Communication takes such forms as policy manuals, accounting and financial reporting manuals, and memoranda. Communication also can be made orally and through the actions of management.

Application to Small and Midsized Entities

15. Information systems in small or midsized organizations are likely to be less formal than in larger organizations, but their role is just as significant. Smaller entities with active management involvement may not need extensive descriptions of accounting procedures, sophisticated accounting records, or written policies. Communication may be less formal and easier to achieve in a small or midsized company than in a larger enterprise due to the smaller organization's size and fewer levels as well as management's greater visibility and availability.

Monitoring

16. Monitoring is a process that assesses the quality of internal control performance over time. It involves assessing the design and operation of controls on a timely basis and taking necessary corrective actions. This process is accomplished through ongoing monitoring activities, separate evaluations, or a combination of the two.
17. Ongoing monitoring activities are built into the normal recurring activities of an entity and include regular management and supervisory activities. Managers of sales, purchasing, and production at divisional and corporate levels are in touch with operations and may question reports that differ significantly from their knowledge of operations.
18. In many entities, internal auditors or personnel performing similar functions contribute to the monitoring of an entity's activities through separate evaluations. They regularly provide information about the functioning of internal control, focusing considerable attention on evaluating the design and operation of internal control. They communicate information about strengths and weaknesses and recommendations for improving internal control.
19. Monitoring activities may include using information from communications from external parties. Customers implicitly corroborate billing data by paying their invoices or complaining about their charges. In addition, regulators may communicate with the entity concerning matters that affect the functioning of internal control, for example, communications concerning examinations by bank regulatory agencies. Also, management may consider communications relating to internal control from external auditors in performing monitoring activities.

Application to Small and Midsized Entities

20. Ongoing monitoring activities of small and midsized entities are more likely to be informal and are typically performed as a part of the overall management of the entity's operations. Management's close involvement in operations often will identify significant variances from expectations and inaccuracies in financial data.

Appendix D

Glossary of Selected Terms and Concepts

Abnormal termination of jobs (ABEND). The discontinuation of execution of a computer program before its data have been completely processed. Corrections to files, application software, or security access may be required.

Accounting system. The methods and records established to record, process, summarize, and report an entity's transactions (as well as events and conditions) and to maintain accountability for the related assets, liabilities, and equity.

Application control activities. Controls over computerized systems generally designed for a specific business application. Examples of application controls are automated edit checks, file control reconciliations, and automated segregation of duties.

Assertions. Management representations that are embodied in the account balance, transaction class, and disclosure components of financial statements. They include (1) existence and occurrence, (2) completeness, (3) rights and obligations, (4) valuation or allocation, and (5) presentation and disclosure.

Assessed level of control risk. The level of control risk the auditor uses in determining the detection risk to accept for a financial statement assertion and, accordingly, in determining the nature, timing, and extent of substantive tests. This level may vary along a range from maximum to minimum as long as the auditor has obtained evidential matter to support that assessed level.

Assessing control risk. The process of evaluating the effectiveness of an entity's internal control in preventing or detecting misstatements in financial statement assertions.

Checkpoint/Restart. A technique for allowing batch applications to be restarted at key points within a job stream, after a software or hardware failure, precluding the need to restart the entire job.

Compliance. Having to do with conforming with laws and regulations applicable to an entity.

Component. One of five elements of internal control. The internal control components are the control environment, risk assessment, control activities, information and communication, and monitoring.

Control. (1) A noun, used as a subject, e.g., existence of a control—a policy or procedure that is part of internal control. A control can exist within any of the five components. (2) A noun, used as an object, e.g., to effect control—the result of policies and procedures designed to control; this result may or may not be effective internal control. (3) A verb, for example, to control—to regulate; to establish or implement a policy that effects control.

Control activities. Those policies and procedures that help ensure that management directives are carried out and that necessary actions are taken to address risks to achieve the entity's objectives.

Control environment. Sets the tone of an organization, influencing the control consciousness of its people. Control environment factors include (1) integrity and ethical values, (2) commitment to competence, (3) board of directors or audit committee, (4) management's philosophy and operating style, (5) assignment of authority and responsibility, and (6) human resource policies and practices.

Control risk. The risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by an entity's internal control.

Controls over access to programs and data. A classification of general computer control activities, generally referred to as security controls. Control activities of this type limit access to computer data and programs to those requiring such access in the performance of their duties. These controls include the use of passwords and user IDs, and the classifications of employees into groups by job function and by levels of authorization or privilege.

Controls over changes to programs and systems. A classification of general computer control activities. Control activities of this type help ensure that authorized changes to application programs are properly designed, programmed, tested, and placed in operation. These controls are the same types of control activities as those related to the development of new programs.

Controls over computer operations. A classification of general computer control activities. Control activities of this type provide for the effective operation of the computer center. Examples include formal scheduling of jobs and procedures to ensure that printed outputs are distributed in conformity with formal authorized distribution lists. Many of these functions are now an integral part of automated operations software.

Controls over development of program systems. A classification of general computer control activities that pertain to the development of new computer software systems in specific and functional areas, known as applications. Control activities over programs provide reasonable assurance that new application software conforms to management's general or specific authorization. Examples of such controls are requirements for management approval of system or program design, or both, at critical points in development and user participation in the system or program development process.

Database. An integrated collection of computerized information, called data elements or fields, organized in a way that permits direct access via a variety of indices, to improve efficiency in accessing information.

Database administrator (DBA). The individual responsible for the design and maintenance of the computerized database system.

Data communications systems. A combination of software and hardware systems that enables communications among local and remote computers.

Data dictionary. A file that contains information on the data elements (fields) and files in a database, including such characteristics as field size.

Detection risk. The risk that the auditor will not detect a material misstatement that exists in an assertion.

Encryption. A process of encoding information so that the contents cannot be understood without the appropriate encryption algorithm.

Feasibility study. An analysis of needs and costs, usually applied in the consideration of new systems.

Financial reporting. Used with "objectives" or "controls": having to do with the reliable preparation of published financial statements.

Functional specifications. The detailed requirements for computerization. Such specifications usually include a detailed description of the system plus information such as current and estimated volumes of transactions and response time requirements.

General computer control activities. Control activities that effect many computer applications and are intended to provide increased assurance that computer processes and programmed control activities operate effectively during the period. They often pertain to (1) the development of new programs and systems, (2) changes to existing programs and systems, (3) computer operations, and (4) access to programs and data.

Information and communication. The identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities.

Inherent risk. The susceptibility of an assertion to a material misstatement assuming there are no related internal controls.

Internal control. A process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (1) reliability of financial reporting, (2) compliance with applicable laws and regulations, and (3) effectiveness and efficiency of operations.

Internal control structure. The controls established to provide reasonable assurance that specific entity objectives will be achieved (see *Internal control*).

Job scheduler. The program that assigns jobs based on priorities and availability of resources (that is, disk storage, memory, and tape drives).

Library. A catalog of programs, including—

- *Source Code Library.* Programs written in programming language before being converted to machine-readable form by the compiler program; the final product of the programmer.
- *Production Library.* Application programs in machine-readable form that are used to perform normal business applications that manipulate data files.

Library management system. A group of programs that manages, controls, and reports the cataloging of application programs and control routines.

Lower assessed level of control risk. As used in this Guide, this represents a lower control risk assessment than would be obtained using a primarily substantive approach. This is one of two basic audit strategies presented in the Guide and ordinarily involves planned tests of controls.

Manual follow-up activities. Controls that involve employee follow-up of items listed on computer exception reports. The effectiveness of application control activities that involve manual follow-up of computer reports depends on the effectiveness of both the programmed control activities that produce the exception report and the manual follow-up activities.

Maximum level of control risk. The greatest probability that a material misstatement that could occur in a financial statement assertion will not be prevented or detected on a timely basis by an entity's internal control.

Monitoring. A process that assesses the quality of internal control performance over time.

Off-the-shelf software. Also known as packages; represents commercially available software created for a variety of users in the same industry or with the same application.

Operating effectiveness. How a control was applied, the consistency with which it was applied, and by whom.

Operating system. Programs and routines used to control the operations of the computer. Some of the functions performed by the operating system are controlling the execution of programs, allocating use of systems devices such as disks and printers, maintaining a log of system use, and coordinating communication between the computer and users.

Operations. Used with "objectives" or "controls": having to do with the effectiveness and efficiency of an entity's operations, including performance and profitability goals, and safeguarding of resources.

Parallel testing. Testing of the programs in a new or modified system by continuing to run the old system and comparing results.

Placed in operation. An entity is using a control.

Planned assessed level of control risk. An anticipated level of control risk used in making judgments about the nature, timing, and extent of tests of controls to be performed.

Preliminary audit strategy. Preliminary judgments about audit procedures that will provide the basis for the auditor's conclusions about inherent risk, control risk, and detection risk. This Guide illustrates two preliminary audit strategies that an auditor might choose: (1) a primarily substantive approach and (2) a lower assessed level of control risk.

Primarily substantive approach. As used in this Guide, this represents an audit strategy that recognizes that for an assertion effective controls may not be effective or it is not efficient to plan to perform tests of controls. Emphasis is placed on substantive tests in reducing audit risk to an appropriately low level.

Programmed control activities. Control activities that relate to specific computer applications and are embedded in the computer programs used in the financial reporting information system. The concept related to programmed control activities may also apply to other procedures within the financial reporting information system.

Risk assessment. The entity's identification and analysis of relevant risks to achievement of its objectives, forming a basis for determining how the risks should be managed.

Security software. A software system that controls access to data, computer programs, and facilities through the use of passwords and other techniques.

Substantive tests. Tests of details and analytical procedures performed to detect material misstatements in the account balance, transaction class, and disclosure components of financial statements.

Systems analyst. The function that analyzes the needs of a user and creates specifications for the programmer.

Tests of controls. Tests directed toward the design or operation of a control to assess its effectiveness in preventing or detecting material misstatements in a financial statement assertion.

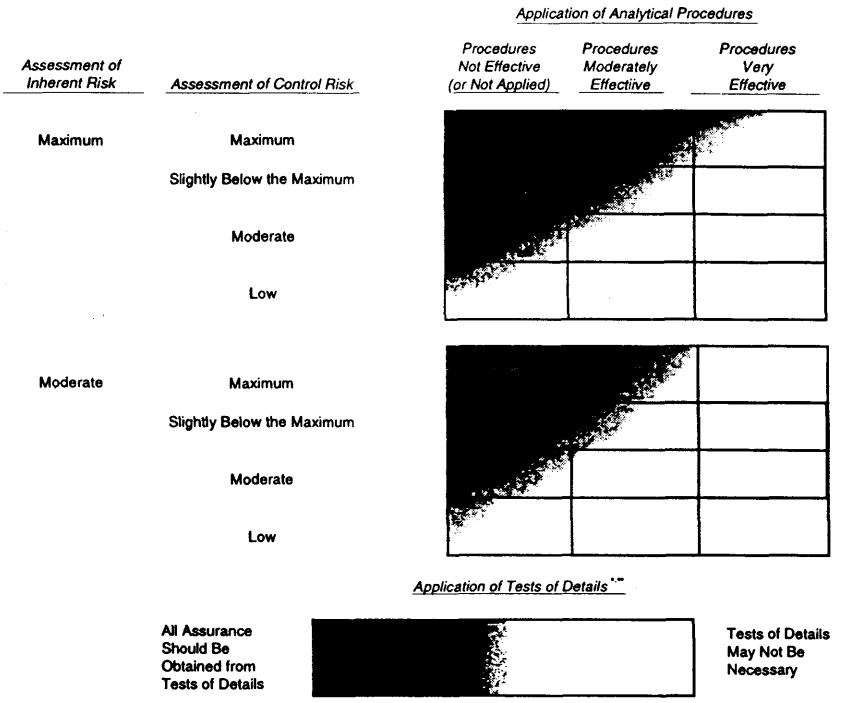
User control activities. Manual checks of computer output against source documents or other input to provide assurance that programmed aspects of the financial reporting information system and control activities have operated effectively.

Users. Those who provide information to, receive information from, or are otherwise involved with or responsible for specific computer applications.

Figure 4-4

Relating Decisions About Inherent and Control Risk to Decisions About Detection Risk Associated With Analytical Procedures and Tests of Details (for assertions related to significant account balances)

After assessing inherent and control risks, the auditor should consider the appropriate audit strategy including substantive analytical procedures and tests of details to restrict detection risk to an appropriate level.



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* The auditor's reliance on substantive tests to achieve an audit objective related to a particular assertion may be derived from tests of details, from analytical procedures, or from a combination of both. The expected effectiveness of analytical procedures in identifying potential misstatements depends on, among other things, *(a)* the nature of the assertion, *(b)* the plausibility and predictability of the relationship, *(c)* the availability and reliability of the data used to develop the expectation, and *(d)* the precision of the expectation.

** As the shading moves from darker to lighter, the audit evidence needed from tests of details decreases. The lightest shading indicates that few or no tests of details are needed. When sampling is applied, the allowable risk of incorrect acceptance would be appropriately increased.