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Construction Contractors' Audit Manual, Volume 2

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AICPA

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INTEGRATED PRACTICE SYSTEM

VOLUME 2

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1 2 3 4 5 6 7 8 9 0 TI 9 9 8 7 6 5

AICPA INTEGRATED PRACTICE SYSTEM
CONSTRUCTION CONTRACTORS AUDIT MANUAL

TABLE OF CONTENTS

VOLUME ONE

VOLUME TWO

Substantive Testing

CHAPTER 7

SUBSTANTIVE TESTING

Table of Contents

CHAPTER 7

SUBSTANTIVE TESTING

7.000 PURPOSE

7.001 Substantive tests are procedures applied to account balances or classes of transactions to determine if there are material misstatements in the financial statements.

7.002 The nature, timing, and extent of substantive tests are generally based on the assessment of inherent and control risk made during the planning phase of the engagement. For example, the higher the assessment of control risk, the more comprehensive the substantive tests should be. If analytical procedures performed during the planning phase of the engagement suggest that some account balances are unexpectedly high or low, the auditor may determine that those balances warrant more testing. Tests' effectiveness can be modified by changing their nature (for example, tests of balances versus analytical procedures), timing (testing as of the balance-sheet date versus an interim date), or extent (testing 100% versus sampling). Similarly, the auditor may be able to change the same factors to make audits more efficient. While the main objective is to perform an effective audit, if alternative tests are equally effective, the auditor should choose the most efficient one.

7.003 Planning occurs throughout the engagement and as a result the auditor might have to reassess risk as the engagement unfolds. For example, even if tests of controls indicated that an area had low risk and the auditor planned substantive tests accordingly, information might come to the auditor's attention during the audit that requires reassessment of the risk. Such information might include, for example, unexpected deviations from control procedures, misstatements that the internal controls should have caught, or new information about transactions or balances.

The ABC System Approach to Substantive Testing

7.004 Before beginning substantive tests under the ABC System, two important documents should be reviewed: (1) the Planning Matrix, which outlines the auditor's plan for performing tests of controls, analytical procedures, and tests of balances for each major audit area; and (2) the Tests of Controls Programs. The Tests of Controls Programs should be reviewed to ensure that the tests of controls provided satisfactory results, in which case the auditor can proceed with the planned strategy for analytical procedures and tests of balances, as outlined in the Planning Matrix. If tests of controls did not provide satisfactory results, the auditor should alter the planned reliance on analytical procedures and/or tests of balances to ensure that sufficient evidence will be obtained from substantive tests. This decision can be documented by amending the Planning Matrix.

7.005 The Tests of Balances Audit Program is organized by major audit area in the same manner as the Internal Controls Questionnaire and the Tests of Controls Program. This allows the auditor to coordinate obtaining the appropriate mix of evidence from tests of controls, analytical procedures, and tests of balances for each major audit area.

7.006 The Tests of Balances Programs should be modified for the work performed on tests of controls, as well as the impact of the analytical procedures performed. These tests will allow the auditor to complete his or her evidence-gathering processes for significant audit areas. Guidance for selecting samples and determining the appropriate sample sizes for Systems A, B, or C is discussed in Chapter 5.

The System's Walk-Through Approach to Substantive Testing

7.007 Because the System's Walk-Through Approach is a primarily substantive audit approach, maximum reliance is placed on analytical procedures and tests of balances. The Analytical Procedures Program has been integrated into the Tests of Balances Program and other sections of the Manual as deemed appropriate. See Chapter 4, section 4.364 for further discussion of the integration of the form. The Tests of Balances Program is included to help the auditor perform substantive tests for a construction contractor audit. It should be tailored to fit each client's operations.

7.100 TYPES OF SUBSTANTIVE TESTS

7.101 There are two broad categories of substantive tests: tests of balances and analytical procedures.

- Tests of balances are procedures applied to the individual items that compose an account balance or class of transactions. The tests involve confirmation, inspection, or observation procedures to provide evidence about the recorded amount.
- Analytical procedures are tests applied to the total recorded amounts and are based on the existence of plausible and consistent relationships among financial statement elements or between financial and nonfinancial amounts.

7.102 The auditor may obtain evidence from any combination of tests of balances and analytical procedures. As a general rule, tests of balances provide stronger evidence and, therefore, are more effective. But analytical procedures can also be effective:

- For certain types of assertions (for example, the completeness assertion, which cannot be tested directly using a test of balances on recorded amounts).
- When the relationships between amounts are very predictable.
- When the data used to develop expectations based on the relationship are reliable.
- When relatively precise expectations can be developed.

7.200 ANALYTICAL PROCEDURES

7.201 Analytical procedures can provide evidence supporting financial statement assertions and, thus, can be used as substantive tests. Because analytical procedures are often the least expensive tests, they should be used whenever practical.

7.202 SAS No. 56, paragraph 5 (AU 329.05), describes the nature of analytical procedures as follows:

> Analytical procedures involve comparisons of recorded amounts, or ratios developed from recorded amounts, to expectations developed by the auditor. The auditor develops such expectations by identifying and using plausible relationships that are reasonably expected to exist based on the auditor's understanding of the client and of the industry in which the client operates. Following are examples of sources of information for developing expectations:
>
> a. Financial information for comparable prior period(s) giving consideration to known changes
>
> b. Anticipated results—for example, budgets or forecasts including extrapolations from interim or annual data
>
> c. Relationships among elements of financial information within the period
>
> d. Information regarding the industry in which the client operates—for example, gross margin information
>
> e. Relationships of the financial information with relevant nonfinancial information

7.203 Whenever analytical procedures are applied as substantive tests, the auditor must apply the following procedures:

1. Consider whether the relationship is plausible and predictable.

2. Consider whether the data used for the comparison is reliable.

3. Consider whether the account balance tested is consistent with the auditor's expectations. If it is not consistent, obtain the client's explanation for the variance and get evidence to corroborate the client's explanation.

7.204 Specific procedures can be classified as either predictive or corroborative depending on their effectiveness in verifying financial statement assertions. Quantity reconciliations and reasonableness tests that predict the balances in accounts, and that are based on reliable information, such as the number of units constructed times price per unit, or average interest rate times average notes payable balance, are the most effective analytical procedures. Favorable results from predictive analytical procedures can substantially reduce, and even eliminate the need for other tests of the applicable balance.

7.205 Comparisons of account balances, ratios, and trend analyses are examples of analytical procedures that corroborate the results of other tests. Favorable results from corroborative analytical procedures will reduce tests of balances. The more effective the corroborative analytical procedure—that is, the lower the level of detail at which it is performed—the greater the reductions in tests of balances will be.

7.206 SAS No. 56 requires that analytical procedures be performed at the planning and final review stages of the audit. Preliminary analytical procedures done in planning are discussed in Chapter 4, sections 4.362-4.364, and the final review procedures are discussed in Chapter 8, section 8.100.

7.207 The auditor should prepare workpapers that support analytical procedures. These workpapers should indicate the purpose of the workpapers, calculations of applicable relationships, and any conclusion reached as a result of performing these procedures.

7.300 TESTS OF BALANCES

7.301 The Tests of Balances Program located in section 7.500 has been designed to provide substantive evidence (when combined with appropriate planning and evidence from analytical procedures and, when appropriate, tests of controls) that is sufficient to support the assertions in the client's financial statements. The Program should be modified to reflect overall engagement risk, risks of potential misstatements, the results of analytical procedures, and the selection of the most cost-beneficial audit approaches and procedures.

Change in 1995 Edition of the Tests of Balances Programs, Audit Planning Memo, and the Analytical Procedures Program

Based on feedback we have received from users of this Manual, we have revised the 1995 edition of the Tests of Balances Programs and Audit Planning Memo. The Tests of Balances Programs and the Audit Planning Memo now includes the related substantive analytical procedures (previously included in the Analytical Procedures Program), which is designed to allow you to more easily choose the right mix of tests of details and substantive analytical procedures for each major audit area, based on the results of completing the Internal Controls Questionnaire, the Risk of Potential Misstatements Form, and the Tests of Controls Program, and considering which types of tests are the most efficient and effective for the audit area. Because of this change, the separate Analytical Procedures Program is no longer included in this Manual.

7.302 The program is designed to verify the financial statement assertions from AICPA Statement on Auditing Standards (SAS) No. 31, *Evidential Matter* (AU 326). These assertions are:

> Completeness — To determine that all transactions and accounts that should be presented have been included in the financial statements.

Occurrence — To determine that all transactions occurring during the period have been recorded in the financial statements (Cutoff).

Valuation or Allocation — To determine that all asset, liability, revenue and expense components have been included in the financial statements at appropriate amounts (classification, cutoff, mathematical accuracy).

Existence — To determine that the entity has rights to all assets recorded at a given date (Validity).

Rights and Obligations — To determine that the entity has rights to all assets recorded and that all liabilities are obligations of the entity at a given date.

Disclosure and Presentation — To determine that all components of the financial statements are properly classified, described and disclosed.

USING THE PROGRAM

7.303 The in-charge should modify the standard program based on the following:

For the ABC Approach — The results of completing the Contractors' Internal Controls Questionnaire in Chapter 6, section 6.200, Contractors' Risk of Potential Misstatements Form in Chapter 5, section 5.601, and Contractors' Tests of Controls Programs in Chapter 6, section 6.400.

For the System's Walk-Through Approach — The risk of potential misstatements discovered while completing the Contractors' System's Walk-Through Documentation Form in Chapter 5, section 5.607.

The auditor needs to consider the numerous elements relating to a contract including prior year exposure and concerns and then determine which contracts to test.

For both approaches —

a. The assessment of overall engagement risk from the Client Acceptance and Continuance Form, Chapter 4, section 4.501,

b. The sampling decisions reached from the guidance and forms in Chapter 5, section 5.500.

Selection of Contracts for Testing and Sites to Visit

7.304 A number of factors enter into the decision of which construction contracts should be selected for testing. First, the auditor should obtain or prepare a schedule of all contracts in progress as of the end of the year or the interim testing date. This schedule should show all relevant accounting information by contract, including:

- name, job number, location, and description of project
- type of contract
- contract price and escalation features, if any
- terms of payment
- cancellation features
- estimated costs by principal contract components and original estimated profit
- status as to renegotiation
- unusual contract features
- bonding and insurance requirements
- costs and estimated earnings, in excess of billings or billings in excess of costs and estimated earnings

7.305 The contract selection process often involves using both subjective and objective criteria. Generally, auditors first select the contracts with the largest amounts of recorded revenues, usually with some predetermined level of coverage in mind, such as 60%. Next, they apply more subjective criteria to obtain coverage of potential high-risk contracts. These criteria might include:

(a) Percent complete — the lower the percentage complete, the greater the potential for misstatement of profit.

(b) Problems (i.e., loss jobs) as indicated by job status reports and large numbers of change orders.

(c) Jobs outside the contractor's range of expertise and experience (e.g., a road builder contracts to build a dam).

(d) Unusually large "bid spreads."

(e) Dispute situations that could develop into claims.

(f) Labor problems.

(g) Unusual items noted in analytical procedures, such as unusually high or low gross profit margins.

(h) Extent of subcontractor involvement.

(i) Past involvement with the project owner.

(j) Small bid margins.

7.306 Determining which job sites to visit is often based on many of the same criteria. If the objective of the job site visit is to obtain an understanding of the internal control structure, a single job site visit may be sufficient, assuming uniform policies and procedures are used throughout the contractor's organization. (In fact, job site visits are not always required assuming alternative procedures can be satisfactorily used.)

7.307 Additional job site visits are generally made when contracts-in-progress are material at the balance-sheet date. Such visits provide substantive evidence about the existence, completeness, and valuation assertions. Substantive evidence at a job site visit includes observation of the physical status of the project, observation of personnel employed at the job site, and the observation of equipment deployed at the job site. Substantive testing can be performed by comparing internally generated records to what is observed at the site.

7.400

Contractors' Tests of Balances Program

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS:

This program has been developed for use on construction contractor audit engagements. It is not a substitute for professional judgment. The minimum tests of balances procedures and sample sizes will be selected for areas assessed as Systems A or B, provided the results from tests of controls and analytical procedures are satisfactory. Certain additional procedures and/or increased sample sizes in tests of balances may be required for financial statement assertions with assessed control risk at maximum—that is, System C. The same will be required for the tests of balances using the System's Walk-Through Approach.

The Contractors' Planning Matrix, the Contractors' Internal Controls Questionnaire, the Contractors' Risk of Potential Misstatements Evaluation Form, and the results of the tests of controls and analytical procedures should be used for guidance when modifying this program and selecting sample sizes under the ABC System. The Contractors' System's Walk-Through Documentation Form and analytical procedures should guide modification for the System's Walk-Through Approach.

This Program contains both substantive analytical procedures and tests of details procedures. It should be modified by the in-charge and reviewed by the engagement partner to reflect the desired assurance needed from each type of test, the appropriate nature, timing and extent of tests, and the circumstances of each engagement.

Each step should be initialled and dated by the engagement personnel who performed the work. References to supporting work papers should be placed in the "W/P Ref." column. Also, "N/A" should be placed in the "W/P Ref." column for any steps that are not applicable.

CONTRACTORS' TESTS OF BALANCES PROGRAM

INDEX

CONTRACTORS' TESTS OF BALANCES PROGRAM

I. CASH

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Presentation and disclosure (P)

Objectives

- Existence—To determine that cash exists and is owned by the entity (assertions E and R)
- Proper cutoff—To determine that cash balances reflect a proper cutoff of cash receipts and disbursements (assertions E, C, and P)
- Completeness—To determine that cash balances as presented in the balance sheet properly reflect all cash and cash items on hand, in transit, or on deposit with third parties (assertions E, C, and P)
- Proper classification—To determine that cash balances are properly classified in the financial statements and any restrictions on the availability of funds are properly disclosed (assertions R and P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs to determine the nature, timing, and extent of auditing procedures. (E, C, and R)	______	______	_____
B. Compare account balances with preceding year's and investigate significant changes. (E, C, R, and P)	______	______	_____
C. At balance-sheet date:			
1. Count undeposited funds on hand at _____ locations and control until deposited. (E and R)	______	______	_____
2. Count _____ petty cash and pay particular attention to the nature of transactions. (E and R)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
I. CASH *(Continued)*

Procedures	Done By	Date	W/P Ref.

> **Practice Tip:**
>
> It is often a good idea to scan petty cash vouchers to determine types of expenses that are paid out of petty cash. Be on the lookout for items that might need to be capitalized.

3. Obtain last unused check numbers by physical inspection. (E and R) ______ ______ ______

4. List any checks prepared and recorded prior to the balance-sheet date, but not yet mailed. (C) ______ ______ ______

5. Prepare and mail the Standard Form to Confirm Account Balances Information with Financial Institutions for _____ demand and time deposit accounts. (E, C, and R) ______ ______ ______

> **Practice Tip:**
>
> All confirmation and cutoff requests should be mailed by the auditor.

6. Prepare and mail a Bank Cutoff Statement Requests on _____ bank accounts to be sent directly to us. Consider proving any requested statement not received directly by agreeing the totals of enclosures to amounts on the statement. (E, C, and R) ______ ______ ______

D. Prepare and mail confirmation requests to banks and other financial institutions for contingent liabilities, compensating balances, and credit lines. (E, C, and R) ______ ______ ______

E. Obtain bank reconciliations for _____ accounts as of balance-sheet date and—

CONTRACTORS' TESTS OF BALANCES PROGRAM
I. CASH *(Continued)*

Procedures	Done By	Date	W/P Ref.
1. Foot reconciliations.	_____	_____	_____
2. Trace book balances to the general ledger.	_____	_____	_____
3. Trace bank balances to cutoff bank statement.	_____	_____	_____
4. Agree bank balances to confirmations from the bank.	_____	_____	_____
5. Trace reconciling items to bank cutoff statements or other supporting documents. Items not clearing during the cutoff period should be challenged for propriety and traced to supporting documents.	_____	_____	_____
6. Determine items in bank cutoff statement relating to periods before, or on, the reconciliation date are properly reflected on the reconciliation.	_____	_____	_____
7. Agree last deposit amount and last unissued check number obtained at balance-sheet date to the source journals.	_____	_____	_____
8. Examine (material/all) enclosures returned with bank cutoff statements to determine any unusual items or unrecorded transactions taking place prior to the balance-sheet date.	_____	_____	_____
9. For checks dated for the first _____ days after the reconciliation date, examine the date of the first bank endorsement to determine if they precede the reconciliation date.	_____	_____	_____
10. Trace lists of any held checks to outstanding check lists. (E, C, and R)	_____	_____	_____
F. Schedule interbank and intrabank transfers for _____ days before and after the balance-sheet date by reference to:			
1. Deposits in transit and outstanding checks on bank reconciliations.	_____	_____	_____
2. Cash receipts and disbursements journals or duplicate deposit slips and check copies.	_____	_____	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
I. CASH *(Continued)*

Procedures	Done By	Date	W/P Ref.
3. Enclosures in cutoff bank statements. (E, C, and R)	______	______	______
G. Determine that all such transfers were:			
1. Recorded on the books in the same period for both bank accounts.	______	______	______
2. Properly accounted for if uncompleted. (E, C, and R)	______	______	______
H. Review bank confirmations and cutoff statements for details applicable to other areas of the financial statements. (P)	______	______	______
I. Segregate any bank overdrafts or funds subject to withdrawal restrictions. (P)	______	______	______
J. Review any compensating balances arrangements for the benefit of the company or related parties. (P)	______	______	______
K. Additional procedures:			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

II. CONTRACT RECEIVABLES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that contract receivables exist, are authentic obligations owed to the entity, and contain no significant amounts that should be written off, and that allowances for doubtful accounts are adequate and not excessive (assertions E, R, and V)
- Proper disclosure—To determine that proper disclosure is made of any pledged, discounted, or assigned contract receivables (assertions R and P)
- Revenue recognition—To determine that interest on contract receivables has been properly recorded (assertions C, R, and V)
- GAAP conformity—To determine that presentation and disclosure of contract receivables are in conformity with GAAP and industry practices consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Compare balances of contract receivables with preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	______
C. Obtain or prepare a list of aged contract receivables at the balance-sheet date and foot and trace to the general ledger. Determine that retainages have been separately classified. (E and C)	______	______	______
D. Trace _______ of the accounts to the subledger for name, amount and aged categories. Select _______ accounts in the subledger and compare to the aging. If no subledger is available (System C), or if a system's walk-through procedure was performed, examine underlying billing invoices and collections documentation. (E and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
II. CONTRACT RECEIVABLES *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. Review and document collections for contract receivables for _____ days after balance-sheet date. (E, R, and V)	_______	_______	_______
F. Request positive confirmation for contract receivables including contracts in progress at balance-sheet date. Confirmations should include contract amount, change orders, amounts billed and/or collected to date, current and retainage receivable amounts, estimated completion date and a request for reporting any contractual disputes.			
1. Individually significant accounts with balances including retainage in excess of $_____.	_______	_______	_______
2. Accounts from the sampling population as follows: ________________ ________________ ________________ ________________	_______	_______	_______
(E, R, and V)			
G. If customer addresses have not been verified during tests of controls, select ______ accounts (at least 10) and independently verify addresses by reference to phone or business directories, phone calls to customers, documents received from customer, credit checks, etc. (E, R, and V)	_______	_______	_______
H. Send second requests for nonreplies. (E, R, and V)	_______	_______	_______
I. Perform alternative procedures for accounts not responding to second requests by examining posting dates for subsequent collections on the contract receivables subledger for a System A. If there are no subsequent collections, examine contract and progress billings. Consider examining supporting documents for any unusually large account balances or for all nonreplies when such nonreplies are extensive. Also examine subsequent collections, contracts, progress billings and other documentation when a System B or C or System's Walk-Through Approach is used. (E, R, and V)	_______	_______	_______

CONTRACTORS' TESTS OF BALANCES PROGRAM
II. CONTRACT RECEIVABLES *(Continued)*

Procedures	Done By	Date	W/P Ref.

Practice Tip:

Watch for subsequent collections that don't match billings. Such mismatches may indicate billing or posting errors, contract disputes or adjustments, or other matters to be investigated further.

J. Reconcile all confirmation exceptions by reference to the contract receivable subledger or other documents. Be alert to explanations that may be evidence of overall conditions affecting the financial statements. Follow up on such conditions. (E, R, and V)	______	______	______

Practice Tip:

Be alert for large credits claimed by customers (especially close to the balance-sheet date). These credits may represent contract work that was never performed, thereby affecting ending costs and estimated earnings on contracts.

K. Summarize the results of the confirmation procedures. (E and V)	______	______	______
L. Obtain a list of any unbilled receivables and confirm. If confirmation is not possible, perform alternate procedures including subsequent examination of the billing, cash collections and an evaluation of the propriety of the billing at the balance-sheet date based on accumulated cost and other data. (E, R, and V)	______	______	______
M. Obtain a list of any unapproved change orders and contract claims that have been recorded. Trace to general ledger and confirm. If confirmation is not possible, perform alternate procedures including tests of the cost accumulation underlying the claim, examination of proper authorization, review of contract, subsequent billing and collection, etc. Consider discussion with legal counsel. (Auditor must evaluate the propriety of the claim and whether or not it is collectible.) (E, R, and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
II. CONTRACT RECEIVABLES *(Continued)*

Procedures	Done By	Date	W/P Ref.
N. Classify balances as of balance-sheet date as to:			
1. Billed receivables—completed contracts.	______	______	______
2. Billed receivables—contracts in progress.	______	______	______
3. Retained percentages—all contracts in progress:			
a. Current.	______	______	______
b. Long-term.	______	______	______
4. Unbilled contract receivables (excess of costs and estimated earnings over billings).	______	______	______
5. Contract claim receivables.	______	______	______
6. Credit balances.	______	______	______
7. Others. (P)	______	______	______
O. If sending confirmations at an interim date, perform the following in addition to the steps above:			
1. Select confirmations from a source that is reconciled to the general ledger.	______	______	______
2. Review transactions from the confirmation date to the balance-sheet date for material or unusual items. Review supporting documents for such transactions.	______	______	______
3. Consider confirming several material account balances at the balance-sheet date:			
Positive ______________________	______	______	______
Negative ______________________	______	______	______
(E, R, and V)			

CONTRACTORS' TESTS OF BALANCES PROGRAM
II. CONTRACT RECEIVABLES *(Continued)*

P. Additional procedures:

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM
III. OTHER ACCOUNTS RECEIVABLE

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that receivables exist, are authentic obligations owed to the entity, and contain no significant amounts that should be written off, and that allowances for doubtful accounts are adequate and not excessive (assertions E, R, and V)
- Proper disclosure—To determine that proper disclosure is made of any pledged, discounted, or assigned receivables (assertions R and P)
- Revenue recognition—To determine that interest on other accounts receivable has been properly recorded (assertions C, R, and V)
- GAAP conformity—To determine that presentation and disclosure of other accounts receivable are in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Compare balances in notes receivable and related interest income with the preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	______
C. Inquire about the existence of other accounts receivable. Determine that all have been recorded. (C)	______	______	______
D. Obtain a list of other accounts receivable and agree to the general ledger. (E, C, and R)	______	______	______
E. Request positive confirmations of all significant balances. Send second requests for nonreplies. (E, R, and V)	______	______	______
F. Perform alternative procedures (such as subsequent receipts) on accounts not responding to second requests. (E, R, and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM

III. OTHER ACCOUNTS RECEIVABLE *(Continued)*

Procedures	Done By	Date	W/P Ref.
G. Reconcile any exceptions received. (E, R, and V)	______	______	______
H. Separately classify related-party receivables. (P)	______	______	______
I. Additional procedures:			
______________________			
______________________			
______________________			
______________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

IV. NOTES RECEIVABLE

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that notes receivable exist, are authentic obligations owed to the entity, and contain no significant amounts that should be written off, and that allowances for doubtful accounts are adequate and not excessive (assertions E, R, and V)
- Proper disclosure—To determine that proper disclosure is made of any pledged, discounted, or assigned notes receivable (assertions R and P)
- Revenue recognition—To determine that interest on notes receivable has been properly recorded (assertions C, R, and V)
- GAAP conformity—To determine that presentation and disclosure of notes receivable are in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	_____
B. Inquire about the existence of notes receivable. Determine that all have been recorded. (E, C, and R)	______	______	_____
C. Obtain a list of notes receivable and agree to the general ledger. (E and C)	______	______	_____
D. Examine properly signed and dated notes and any collateral supporting balances due. (E, R, and V)	______	______	_____
E. Request positive confirmation on all significant balances. Send second requests for nonreplies. (E, R, and V)	______	______	_____
F. Examine evidence of periodic or subsequent payments on notes not responding to second requests. (E, R, and V)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
IV. NOTES RECEIVABLE *(Continued)*

Procedures	Done By	Date	W/P Ref.
G. Reconcile any confirmation exceptions received. (E, R, and V)	______	______	______
H. Separately classify notes from related parties. (P)	______	______	______
I. Test the calculation of any accrued interest receivable and consider reconciling to interest income. (E)	______	______	______
J. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________________ Date: ______________________________

Reviewed by: ______________________________ Date: ______________________________

CONTRACTORS' TESTS OF BALANCES PROGRAM
V. ALLOWANCE FOR DOUBTFUL ACCOUNTS

Financial Statement Assertions

Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Appropriate amount—To determine that allowances for doubtful accounts are adequate and not excessive (assertion V)
- Proper disclosure—To determine that proper disclosure is made of any allowances for doubtful accounts (assertion P)
- GAAP conformity—To determine that presentation and disclosure of allowance for doubtful accounts are in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (V)	______	______	______
B. Obtain or prepare an analysis of the bad debt expense and allowance accounts for the year. Compare with prior year balances and investigate significant differences. Challenge the reasonableness of the chargeoffs and recoveries. Discuss with management. (V and P)	______	______	______
C. Examine correspondence files and discuss with management reasons for significant write-offs during the year. (V)	______	______	______
D. Review the aged trial balance and other lists of notes, contracts and accounts and discuss balances over _____ days old with management. Determine need for allowance. Discussions of delinquent contract receivables should include both engineering and financial management personnel to determine if any of the following problems exist:			
1. Disputed costs billed on cost-plus type contracts.	______	______	______
2. Billings to be revised to retain customer goodwill.	______	______	______
3. Equipment not meeting contract guarantees and "make-good" costs are anticipated.	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
V. ALLOWANCE FOR DOUBTFUL ACCOUNTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
4. Amounts not being billed in accordance with the contract. For retained amounts, test the retained percentage back to the contract to see that correct rates are being used and that retainage is being properly calculated.	______	______	______
5. Contract cancellation or postponement.	______	______	______
6. Credit difficulties.	______	______	______
7. In light of Steps 1-6, consider the adequacy of the allowances for doubtful items and that adequate provision has been made for fulfillment of related contract guarantees. (V)	______	______	______
E. Examine contract price adjustment memos issued after the balance-sheet date and determine the need for an allowance for contract price adjustments. (V)	______	______	______
F. Summarize the results of the procedures above and evaluate the adequacy of the allowance. (V)	______	______	______
G. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

VI—A. INVENTORY OBSERVATION

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Valuation or allocation (V)

Objectives

- Existence—To determine that inventory exists (assertion E)
- Quantity and condition—To determine that the client has taken reasonable care in determining the physical quantities and identifying the condition (normal, slow-moving, or obsolete) of its inventory (assertions C and V)

Procedures	Done By	Date	W/P Ref.
A. Review the relevant sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire, and Contractors' Tests of Controls Programs and assess their impact on the nature, extent, and timing of inventory tests of balances procedures. (E, C, and V)	______	______	_____
B. Review the client's plans for taking inventory at all locations; controlling tags and count sheets; identifying obsolete items and consigned and customers' goods; and controlling shipping, receiving, and other movement of inventory during the count. (E, C, and V)	______	______	_____
C. Review or assist in preparing physical inventory instructions. (E, C, and V)	______	______	_____
D. Review last year's inventory summaries and current production records. Consider selecting representative test count items for observation in advance. (E, C, and V)	______	______	_____
E. Observe the taking of the physical inventory:			
1. Obtain a copy of the tag or sheet control form. (E and C)	______	______	_____
2. Obtain the last receiving and shipping report numbers, and job requisition and sales invoice numbers. (E and C)	______	______	_____
3. See that goods movement is controlled during the count and that the physical cutoff is proper. (E and C)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
VI — A. INVENTORY OBSERVATION *(Continued)*

Procedures	Done By	Date	W/P Ref.
4. Identify and record any obsolete goods for follow-up. (V)	______	______	_____
5. Observe counting and recording procedures by all inventory crews to see that inventory instructions are being followed. (E and C)	______	______	_____
6. Make and record representative test counts for later tracing to inventory computation sheets as follows:			
a. Record counts for individually significant inventory items with totals in excess of $_____.	______	______	_____
b. Record counts for representative items from the sampling population as follows:			
________________________________			
________________________________			
________________________________			
________________________________	______	______	_____
(E and C)			
7. See that tags or count sheets contain adequate descriptions, units of measure, last operation completed on work in process, and appraisal of inventory condition if obsolete or slow-moving. (E and C)	______	______	_____
8. Make a final walk-through to determine that all goods were counted, obsolete or consigned goods were identified, and all inventory tags or sheets were collected. (C and V)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
VI — A. INVENTORY OBSERVATION *(Continued)*

Procedures	Done By	Date	W/P Ref.

> **Practice Tip**
>
> Be on the lookout for inventory items that appear old. (for example, last year's inventory tag is still attached; items are dusty from non-use.) Sometimes, general conversations with client personnel taking inventory will help in identifying old goods.

9. Prepare a memo describing the observation procedures and conclusions reached. (E, C, and V)	______	______	______

F. Additional procedures:

______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

VI—B. INVENTORIES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that the inventory exists and is the client's property (assertions E and R)
- Clerical accuracy—To determine that the inventories are summarized and priced with clerical accuracy, and that the records have been adjusted to the physical inventory (assertions C and V)
- GAAP conformity—To determine that inventory classifications and carrying amounts are determined and presented in the financial statements in conformity with GAAP consistently applied [for example, assumptions about the cost flow—such as first in, first out (FIFO) and last in, first out (LIFO)—and lower of cost or market considerations] (assertion P)
- Encumbrances identified—To determine that any encumbrances, such as pledges or liens, are identified and adequately disclosed in the financial statements (assertions R, V, and P)

Procedures	Done By	Date	W/P Ref.
A. Review or prepare any necessary inventory adjustments (E, C, R, and V)	_______	_______	_____
B. Review the results of the relevant sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	_______	_______	_____
C. Trace job requisition and shipping and receiving report numbers obtained during the observation to determine they were recorded in the proper period. (E and C)	_______	_______	_____
D. Examine job requisitions and shipping and receiving reports for _____ days before and after the inventory date, trace to the appropriate source journal and cutoff numbers, and determine that a proper cutoff was made. (E and C)	_______	_______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
VI — B. INVENTORIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. Review reconciliation of inventory summary to general ledger. Examine supporting documents or source journals for major items on reconciliation. (E and C)	______	______	______
F. Review credit memos for _____ days before and after inventory date to determine that they were recorded in the proper period. (E and C)	______	______	______
G. Obtain a copy of the client's inventory summary and:			
1. Agree to general ledger. (E and C)	______	______	______
2. Trace _____ items to and from tags or sheets and control form. (E and C)	______	______	______
3. Trace all test counts to summary and raw count sheets. (E and C)	______	______	______
4. Determine that all individually significant items test counted are included in the summary and extended and footed properly. (C)	______	______	______
5. Review the summary to determine that obsolete goods noted during observation have been excluded or priced at net realizable value. (V)	______	______	______
H. Foot _____ pages and _____ page totals and extend _____ line items in the sampling population. (V)	______	______	______
I. Compare major item categories with prior year's and investigate material changes. (E, C, and V)	______	______	______
J. 1. Determine the client's pricing method for raw materials, work-in-process and finished goods and make a selection of items for price testing from the sampling population as follows: ______________________________ ______________________________ ______________________________ (V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
VI — B. INVENTORIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
2. Compare prices to vendor invoices, price lists and/or perpetual records. Determine that the method is consistent. (V and P)	______	______	______
3. Test price computations for all individually significant items of raw materials, work-in-process and finished goods that were included in test counts. (V)	______	______	______
4. Trace _____ items to perpetual records. Compare amounts and unit prices. (V)	______	______	______
K. Confirm goods at outside locations at balance-sheet date. (E and C)	______	______	______
L. Determine that all classes of inventory have been subjected to tests of replacement costs and/or net realizable value and compare with insurance coverage. (V)	______	______	______
M. If standard costs are used, review calculations and variances to determine that they approximate actual amounts computed on the client's costing method. (V and P)	______	______	______
N. Determine if any inventory has been pledged. (P)	______	______	______
O. Determine that items included in contract costs have been excluded from inventory. If material, consider confirming. (E and C)	______	______	______
P. If overhead allocations were not tested during tests of controls, test the allocation of overhead to inventory and contract costs. Determine if the method is consistent with prior years. (V and P)	______	______	______
Q. Determine any intercompany or interdepartmental profit to be eliminated in consolidation. (V)	______	______	______
R. For significant amounts of inventory stored at outside locations, consider performing the following procedures:			
1. Review and test the owner's control procedures for investigating the warehouseman and evaluating the warehouseman's performance. (E and C)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
VI — B. INVENTORIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
2. Obtain an independent accountant's report on the warehouseman's control procedures relevant to custody of goods and, if applicable, pledging of receipts, or apply alternative procedures at the warehouse to gain reasonable assurance that information received from the warehouseman is reliable. (E and C)	______	______	______
3. Observe physical counts of the goods, if practicable and reasonable. (E and C)	______	______	______
4. If warehouse receipts have been pledged as collateral, confirm with lenders pertinent details of the pledged receipts (on a test basis, if appropriate). (E and P)	______	______	______
S. Additional procedures:			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

VII. INVESTMENT SECURITIES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that the entity owns the securities at the balance-sheet date and has physical evidence of ownership (securities, receipts from responsible custodians, etc.) (assertions E, C, and R)
- Proper valuation—To determine that the market or other fair value of the securities has been determined as objectively as practicable (assertion V)
- Income recognition—To determine that related income, gains, and losses from the investment securities is properly recorded and received (assertions C, R, and V)
- Identification of restrictions—To determine that restrictions, pledges, or liens on any of the investment securities and related liabilities are identified and adequately disclosed in the financial statements (assertions E, C, R, and P)
- GAAP conformity—To determine that the financial statement presentation and disclosure of investment securities, including off-balance sheet items such as options and other derivative instruments, and related income, gains, and losses are in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	_____
B. Obtain a list of securities at balance-sheet date including description, number of shares, cost, carrying amount and market value. Trace balances in investment securities and related revenue and expense accounts to the general ledger. Compare with the preceding year's balances. Investigate significant changes. Review subsequent transactions to determine the completeness of the list. (E, C, R, V, and P)	______	______	_____
C. Examine securities on hand at the balance-sheet date and obtain a receipt for their return. (E and R)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
VII. INVESTMENT SECURITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
D. Obtain confirmation of securities held by others at the balance-sheet date. (E, C, and R)	______	______	______
E. 1. Determine that all debt and equity securities are properly classified as held-to-maturity, available-for-sale, or trading by reference to the nature of the security and management's ability and intention to hold. (P)	______	______	______
2. For debt securities classified as held-to-maturity:			
a. Determine that they are valued at amortized cost. (V)	______	______	______
b. Recalculate the amortized cost. (E, C, V, and P)	______	______	______
3. For debt and equity securities classified as available-for-sale:			
a. Determine that they are valued at fair value and, on a test basis, agree to third-party market value quotations. (E, C, V, and P)	______	______	______
b. Recalculate unrealized gains and losses and determine whether they are properly included as a separate component of stockholders' equity. (Vand P)	______	______	______
4. For debt and equity securities classified as trading securities:			
a. Determine that they are valued at fair value and, on a test basis, agree to third-party market value quotations. (E, C, V, and P)	______	______	______
b. Recalculate unrealized gains and losses and determine whether they are properly included in earnings. (V and P)	______	______	______
5. Obtain a schedule of all sales of investment securities, by category, and transfers between categories during the year and determine whether they have been accounted for properly. (Sales of held-to-maturity securities may taint the category.)	______	______	______
F. Examine brokers' advices and/or directors' approval for major transactions during the period. (E and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
VII. INVESTMENT SECURITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
G. Obtain a list of all derivative transactions. (E and C)			
1. Examine evidence of the transactions and directors' approval of the transactions. (E, C, and R)			
2. Obtain confirmations of outstanding transactions as of year end. (E)			
3. Review subsequent transactions to determine completeness of the list. (C)			
4. For disclosure purposes obtain and evaluate information concerning significant individual or group concentrations of credit risk. (P)			
5. Determine that any gains or losses have been properly recorded. (V and P)			
H. Determine if any securities are pledged or restricted. (P)			
I. Ensure that all information needed for financial statement disclosures has been accumulated and documented in the workpapers. (Refer to the Small Business Audit Reporting and Disclosure Checklist in Chapter 9.) (P)			
J. Additional procedures:			

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

VIII. PREPAID EXPENSES

Financial Statement Assertions
Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recording—To determine that the balances represent costs that are properly allocable to future periods in conformity with GAAP (assertions E, C, R, and V)
- Support for additions—To determine that additions are adequately supported (assertions E, C, R, and P)
- Appropriateness of amortization—To determine that amortization is determined by a rational and systematic method consistently applied (assertions V and P)
- Recognition of impairment—To determine that any permanent impairment of balance is recognized by write-downs charged to operations (assertions E, C, V, and P)
- Proper classification—To determine that balances and related expenses are properly described and classified in the financial statements (assertion P)
- Disclosure of contingencies—To determine whether there are uninsured risks that should be considered for disclosure (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain or prepare a schedule of prepaid insurance and expense. Review for reasonableness. (E, C, and V)	______	______	______
C. Compare balances in prepaid expense accounts with the preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	______
D. Inquire about the adequacy of insurance coverage for—			
1. Property loss	______	______	______
2. Employee health, accident, and disability	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
VIII. PREPAID EXPENSES *(Continued)*

Procedures	Done By	Date	W/P Ref.
3. Surety bonding — bid, performance, and payment	______	______	_____
4. Product, environmental, and general liability	______	______	_____
5. Business interruption (E, C, V, and P)	______	______	_____
E. Determine whether estimated or deposit premiums on retrospectively-rated policies (such as workers' compensation) are adjusted for actual experience. (E, C, V, and P)	______	______	_____
F. Confirm insurance coverage in force at the balance-sheet date. (P)	______	______	_____
G. Obtain or prepare an analysis of other prepaid expenses. Investigate and support as considered necessary. (E, C, and V)	______	______	_____
H. Additional procedures:			
________________________________			
________________________________			
________________________________			
________________________________	______	______	_____

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

IX. FIXED ASSETS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that fixed assets exist and are owned by the entity (assertion E)
- Appropriateness of additions—To determine that fixed asset additions are authentic, recorded at cost, and properly distinguished from maintenance and repairs expense (assertions E, C, and R)
- Recording of retirements—To determine that retirements of fixed assets, proceeds from salvage, and related cost to remove are properly recognized (assertions E, C, and V)
- Appropriateness of depreciation—To determine that a proper amount of depreciation expense is allocated to the period based on the asset cost, estimated life and salvage, and use of acceptable methods consistently applied, and adequately presented in the financial statements (assertions V and P)
- Recoverable value—To determine that the net carrying value as presented in the financial statements is expected to be recoverable through the ordinary course of business (assertion V)
- Identification of encumbrances—To determine that any encumbrances and liens are identified and adequately disclosed in the financial statements (assertion P)
- Proper classification—To determine that significant amounts of idle fixed assets are properly stated, classified, and described (assertion P)
- Proper disclosure—To determine that significant amounts of fully depreciated assets are considered for disclosure (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and the Contractors' Tests of Controls Programs and determine their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain a schedule showing cost and accumulated depreciation and amortization by beginning balance, additions, retirements and ending balances and agree to the general ledger. (E, C, V, and P)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
IX. FIXED ASSETS *(Continued)*

Procedures	Done By	Date	W/P Ref.
C. Compare balances in fixed assets, capitalized leased assets, accumulated depreciation, accumulated amortization, depreciation, repairs and maintenance, rents, supplies, small tools, and similar expense accounts with the preceding year's and investigate significant changes. (E, C, R, V, and P)			
D. Obtain detailed schedules of additions and retirements:			
1. Vouch major additions to vendors' invoices, construction cost records, titles, deeds, or contracts to determine that fixed assets are properly recorded. (E and V)			
2. Physically inspect _____ assets and/or examine tax bills, deeds, licenses, etc. (E)			
3. Determine that the capitalization policy is reasonable, and is consistently applied. (V)			
4. Determine the investment credit recapture on disposals. Summarize for tax return and provision computation. (V and P)			
E. Obtain or prepare a schedule of gain or loss on sale of assets. Trace major amounts to supporting documents and records and review for reasonableness. (E, V, and P)			
F. Review repairs and maintenance, supplies, small tools, and other accounts for any assets that should be capitalized. (V)			
G. Determine the carrying amount of assets pledged on notes or other indebtedness. (P)			
H. 1. Determine the cost of any significant fully depreciated assets carried in the accounts, if meaningful for presentation or disclosure purposes. (P)			
2. Ascertain that fully-depreciated assets still in use, if significant, have not been written off. (C)			
3. Determine that any impairment in value of assets has been properly recognized. (V)			

CONTRACTORS' TESTS OF BALANCES PROGRAM
IX. FIXED ASSETS *(Continued)*

Procedures	Done By	Date	W/P Ref.
I. If the contractor has adopted SFAS No. 121, and any events or changes in circumstances have occurred indicating that the carrying amount of a long-lived asset may not be recoverable:			
1. Determine if an impairment loss should be recognized. [An impairment loss should be recognized if the carrying amount of an asset exceeds estimated future cash flows (undiscounted and without interest charges).]	______	______	______
a. Review the estimate of future cash flows for mathematical accuracy and, through discussion with management and review of any supporting documentation, determine whether assumptions used are reasonable.	______	______	______
2. If an impairment loss should be recognized, test the calculation of the loss. [The impairment loss is measured as the amount by which the carrying amount of an asset exceeds its fair value.]	______	______	______
a. Test the fair value calculation by vouching to quoted market prices in active markets or by reviewing the valuation technique used.	______	______	______
b. If the fair value is based on the present value of estimated future cash flows, test for mathematical accuracy and ensure that the assumptions used in the present value calculation, including the discount rate, are reasonable.	______	______	______
(E, C, R, V, and P)			
J. Inquire as to any significant expansion plans. (P)	______	______	______
K. Review rental revenue and expense accounts to determine that leased and subleased assets are properly recorded. (V and P)	______	______	______
L. Challenge the reasonableness of assets' lives used for accounting and income tax purposes. (V)	______	______	______
M. Challenge the reasonableness of the method used to charge equipment usage to jobs and test the calculations of rates. (V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
IX. FIXED ASSETS *(Continued)*

Procedures	Done By	Date	W/P Ref.
N. Read client's depreciation schedules for consistency of methods and reasonableness. Test a selection of _____ computations. Agree schedule to general ledger and compare balances with preceding year's. Investigate significant changes. (V and P)	______	______	______
O. Review lease agreements to determine if leases meet criteria for capitalization and see that they are accounted for properly.	______	______	______
P. Gather and document information for financial statement disclosure and tax return preparation. (P)	______	______	______

Practice Tip:

If the client has offices in different states, be sure to itemize fixed assets to aid in allocation for income tax calculations and returns.

Procedures	Done By	Date	W/P Ref.
Q. Consider and compute any capitalized interest. (V)	______	______	______
R. Determine fixed asset replacement values and compare with insurance coverage. (E, C, R, V, and P)	______	______	______
S. Additional procedures:			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

X. INVESTMENTS AND OTHER ASSETS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that the entity owns the investments and other assets at the balance-sheet date and has physical evidence of ownership (such as securities, policies, receipts from responsible custodians, etc.) (assertions E, C, and R)
- Proper valuation—To determine that the values of the investments and other assets have been determined as objectively as practicable (assertion V)
- Income recognition—To determine that related income from the investments and other assets are properly recorded and received (assertions C, R, and V)
- Identification of restrictions—To determine that liabilities, restrictions, pledges, or liens related to any of the investments and other assets are identified and adequately disclosed in the financial statements (assertions E, C, R, and P)
- GAAP conformity—To determine that the financial statement presentation and disclosure of investments and other assets, and related income and expenses (such as classification, cost, equity, etc.) are in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain schedules of investments and other assets and agree to the general ledger. (E and C)	______	______	______
C. Confirm:			
1. Securities held by others. (E and C)	______	______	______
2. Cash surrender value of life insurance. (V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
X. INVESTMENTS AND OTHER ASSETS *(Continued)*

Procedures	Done By	Date	W/P Ref.
D. For life insurance, reconcile prepaid premiums at the beginning of the period, premiums paid, and increase in cash surrender value with life insurance expense. (V)	______	______	______
E. Review _____ calculations of investment earnings and related accruals for reasonableness. (V)	______	______	______
F. Examine documentation supporting investment transactions during the year. (E, R and V)	______	______	______
G. For equity investments, determine the current value at the balance-sheet date and at the report date. Challenge carrying amount. (V)	______	______	______
H. If investments are carried on the equity method:			
1. Determine the company's equity in net assets at year-end and earnings (losses) and distributions for the year based on audited information.	______	______	______
2. Obtain a reconciliation of intercompany transactions and balances. Determine reasonableness.	______	______	______
3. Check computation of amortization of cost over book value. (V)	______	______	______
I. Determine if any investments are pledged or restricted. (P)	______	______	______
J. For majority-owned subsidiaries, determine that consolidated presentation complies with GAAP. (P)	______	______	______
K. Additional procedures:			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XI. DEFERRED CHARGES AND INTANGIBLES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recording—To determine that the balances represent costs that are properly allocable to future periods in conformity with GAAP (assertions E, C, R, and V)
- Support for additions—To determine that additions are adequately supported (assertions E, C, R, and P)
- Appropriateness of amortization—To determine that amortization is determined by a rational and systematic method consistently applied (assertions V and P)
- Recognition of impairment—To determine that any permanent impairment of balance is recognized by write-downs charged to operations (assertions E, C, V, and P)
- Proper classification—To determine that balances and related expenses are properly described and classified in the financial statements (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain schedules of deferred charges and intangibles and agree to the general ledger. Compare balances with the preceding year's and investigate significant changes. (E, C, and V)	______	______	______
C. Examine documentation supporting major transactions during the year. (E, R, and V)	______	______	______
D. Review capitalization policies and amortization computations as considered necessary. (V)	______	______	______
E. Determine if there has been permanent impairment of carrying amounts. (V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XI. DEFERRED CHARGES AND INTANGIBLES *(Continued)*

Procedures	Done By	Date	W/P Ref.
F. Determine any required disclosures. (P)	______	______	______
G. Additional procedures:			
________________________________			
________________________________			
________________________________			
________________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XII. ACCOUNTS PAYABLE

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that accounts payable represent authorized current obligations (assertions E and C)
- Proper classification—To determine that amounts included in accounts payable are properly classified (assertion P)
- Completeness of obligations—To determine that accounts payable include all significant current obligations (assertions C, R, and V)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain or prepare a list of accounts payable, foot and reconcile to general ledger. (E and C)	______	______	______
C. Compare balances in trade accounts payable and purchases with the preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	______
D. Segregate amounts due to officers, employees, stockholders, affiliates and other related parties. (P)	______	______	______
E. Send confirmation requests to _____ major suppliers, and selected other accounts with zero balances. Reconcile and follow up on differences. (The number of requests can be reduced or eliminated for System A.) (E, C, and R)	______	______	______
F. Consider confirming large debit balances. (P)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XII. ACCOUNTS PAYABLE *(Continued)*

Procedures	Done By	Date	W/P Ref.
G. Review client reconciliations of available current vendors' statements to accounts payable subledger. Follow up on unresolved problems. (If a subledger is not in use, System B or C, or for the system's walk-through approach, step is not applicable.) (E, C, and R)	______	______	_____
H. Obtain the purchases journal and trace all entries over $_____ for a period of _____ days before and after the balance-sheet date to supporting documents to determine recording in the proper period. (C and R)	______	______	_____
I. Obtain the cash disbursements journal and trace all entries over $_____ for a period of _____ days before and after the balance-sheet date to supporting documents to determine recording in the proper period. (C and R)	______	______	_____
J. Review the open receiving report, open purchase order and open purchase requisition files for _____ days before and after the balance-sheet date for unrecorded liabilities. (C and R)	______	______	_____
K. Review the open vendor invoice files for _____ days before and after the balance-sheet date to determine recording in the proper period. (C and R)	______	______	_____
L. Investigate any disputed items that have not been recorded. (C and R)	______	______	_____
M. Determine that credit memos received _____ days before and after the balance-sheet date have been recorded in the proper period. (E and R)	______	______	_____
N. Determine whether any payables are due after one year and consider imputing interest. (V)	______	______	_____
O. Classify accounts payable as follows:			
— Trade	______	______	_____
— Subcontractors	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XII. ACCOUNTS PAYABLE *(Continued)*

Procedures	Done By	Date	W/P Ref.
— Subcontract retainages—current and noncurrent			
— Material debit balances			
— Due after one year			
— Other (P)			

> **Practice Tip:**
>
> Nontrade accounts payable (such as for fixed asset purchases) should be segregated for preparation of the statement of cash flows. Generally, changes in nontrade accounts payable balances are adjustments of cash flows from investing or financing activities, and/or noncash transactions for disclosure, rather than reconciling items from net income to net cash flows from operating activities.

Procedures	Done By	Date	W/P Ref.
P. Obtain a schedule of subcontracts in process and trace unpaid balances to accounts payable list. (C and R)			
Q. Send confirmation requests to all major subcontractors. Confirm the following items from the client's records:			
1. Original contract amount.			
2. Change order additions or deletions.			
3. Amended contract.			
4. Total billings to date.			
5. Balance due on contract.			
6. Received to date.			
7. Current receivable (from subcontractor).			

CONTRACTORS' TESTS OF BALANCES PROGRAM
XII. ACCOUNTS PAYABLE *(Continued)*

Procedures	Done By	Date	W/P Ref.
8. Retainage receivable (from subcontractor). (E, C, and R)	______	______	______
R. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XIII. ACCRUED EXPENSES, INCOME TAXES, AND OTHER LIABILITIES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Amount reasonable—To determine that the provision for income taxes is reasonable (assertions E, C, R, and V)
- Amount comparable to amount to be paid—To determine that the liability for accrued income taxes is adequate and not excessive in relation to amounts reasonably expected to be payable (assertions R and V)
- Temporary differences recognized—To determine that deferred income taxes represent the effect of temporary differences (assertions E, C, and V)
- Proper classification—To determine that income tax provisions, accruals, and deferrals are properly described and classified in conformity with GAAP consistently applied (assertion P)
- Liabilities completeness—To determine that expense accounts include costs and expenses applicable to the period (assertions E, C, and P)
- GAAP conformity—To determine that all contingencies and estimated future expenses that should be accrued have been accrued, classified, and described in accordance with GAAP consistently applied (assertions E, C, R, V, and P)

Procedures	Done By	Date	W/P Ref.
A. Review results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain or prepare schedules of all accrued expenses and other liabilities and agree to the general ledger. Compare balances with preceding year's and investigate significant changes. (E and C)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIII. ACCRUED EXPENSES, INCOME TAXES, AND OTHER LIABILITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
C. Examine subsequent payments and supporting documents such as tax returns, depository receipts, tax receipts, etc. (E, C, and R)			
D. Test the calculations of accrued expenses and examine support as considered necessary. (V)			
E. Discuss with management any accrued expenses or liabilities at the last balance-sheet date not provided for currently. Be alert for unrecorded liabilities such as warranty costs, legal fees, compensated absences, etc. (C and R)			
F. Obtain or prepare an analysis of all balance sheet and earnings statement current and deferred federal, state, and local income tax accounts. Examine supporting documents and challenge for reasonableness. (C, R, and V)			
G. Review the reconciliation of earnings (loss) per books with the tax returns and the computation of current and deferred income tax expense and liabilities. Determine that deferred taxes have been accounted for in accordance with GAAP. (V)			
H. Determine the nature of any significant difference between "expected" and reported income tax expense that should be disclosed. (P)			
I. Investigate the status of any unsettled prior years' tax matters and recent RARs. Determine the impact of prior years' settlements on the current year. (C and V)			
J. Review schedules of unused loss and tax credit carryovers for propriety. (P)			
K. Complete tax checklists:			
1. Tax Accrual/Provision Review Checklist.			
2. Tax return preparation checklists, if available. (P)			

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIII. ACCRUED EXPENSES, INCOME TAXES, AND OTHER LIABILITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
L. Obtain a tax department review of the income tax working papers. (V and P)			
M. Obtain income tax disclosure information:			
1. Classification of deferred taxes on the balance sheet.			
2. Composition of provision, such as amounts currently payable and deferred, tax credits, benefits of loss carryovers, rate adjustments, changes in entity, etc.			
3. Cumulative effect, discontinued operations, extraordinary item and prior-period adjustment allocations. (P)			
N. Consider additional tax liabilities to any new states in which the client does business. (C and R)			
O. Compute, or obtain and test the client's computation of, deferred tax assets and liabilities to determine conformance with SFAS No. 109. (C, V, and P)			
P. For deferred tax assets, determine the likelihood that all or part of the recorded amount will not be realized. (E, V)			
Q. If it is determined that it is more likely than not that all or part of the deferred tax asset will not be realized, evaluate the adequacy of the valuation allowance account by performing the following:			
1. Review and test the process used by management to develop the estimate, or develop an independent expectation of the estimate, to corroborate the reasonableness of management's estimate. (V)			
2. Determine whether any subsequent events or transactions have occurred prior to the completion of fieldwork that could affect the adequacy of the valuation allowance. (V, C)			

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIII. ACCRUED EXPENSES, INCOME TAXES, AND OTHER LIABILITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
R. Obtain copies of actuarial reports or trustees' reports and determine:			
1. Actuarial information agrees with client's records. (V and P)	______	______	_____
2. The accounting and funding policies, and employee groups covered by the plans. (P)	______	______	_____
3. Adequate provision has been made for current obligations. (V)	______	______	_____
4. Ascertain if there have been any adoptions or amendments of plans during the period, obtain copies of any, and note for financial statement disclosure. (E, C, V, and P)	______	______	_____
5. Report disclosure information is available. (P)	______	______	_____
6. Compliance with GAAP. (V and P)	______	______	_____
7. Reconcile plan assets per the trustee's report to amounts shown in the actuarial valuation report. (E and C)	______	______	_____
8. Ascertain and document that actuary is professionally qualified. (Membership in the Society of Actuaries, the Conference of Actuaries in Public Practice, American Academy of Actuaries is usually sufficient to indicate that actuary is qualified.) (V)	______	______	_____
9. Review the actuary's most recent certificate on Schedule B, Form 5500, and determine and document the reasons for qualifications expressed, if any. (V)	______	______	_____
10. Vouch the payment of the prior year's accrual to determine that it was paid prior to the filing of the year tax return. (If not paid at the tax return due date, or extended due date, the bank loses its tax deduction.) (E and C)	______	______	_____
11. Trace the authorization for the contribution to the plan to the company's minutes, or obtain the management representation in the representation letter. (R)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIII. ACCRUED EXPENSES, INCOME TAXES, AND OTHER LIABILITIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
12. Inquire of the client as to any intent to terminate the plan. (E)	______	______	______
13. If not previously audited, obtain net transition obligation computations and agree amounts to actuarial report, trustees report, or other evidential sources. Recheck compensation. (V and P)	______	______	______
14. Obtain calculation of pension cost for the current period and agree components to actuarial report or trustee's report. (V and P)	______	______	______
15. Determine that a liability is recorded for unfunded accrued pension cost whenever the company's contribution is less than its related expense or that prepaid pension costs is recorded when the amount funded exceeds the related expenses. (V and P)	______	______	______
16. Determine that an additional liability is recorded equal to the excess, if any, of the accumulated benefit obligation over the fair value of plan assets. (Similar assets are not recorded except when the excess follows a business combination treated as a purchase.) (V and P)	______	______	______
S. Additional procedures:			
________________________________			
________________________________			
________________________________			
________________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XIV. NOTES PAYABLE AND LONG-TERM DEBT

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that notes payable and long-term debt are authorized, properly classified, and described in the financial statements (assertions R and P)
- Recording in the proper period—To determine that liabilities are recorded in the proper period at the correct amounts (assertions E, C, and V)
- Recognition of expense—To determine that related interest expense (including discount or premium) is accounted for in conformity with GAAP consistently applied (assertions C and P)
- Adequacy of disclosure—To determine that the financial statements include adequate disclosure of restrictive covenants of loan agreements, pledged assets, etc. (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain a schedule of notes and related interest expense showing beginning balances, additions, payments, ending balances and all terms of borrowing and repayment. Test the mathematical accuracy of the schedule and reconcile to the general ledger. (E and C)	______	______	______
C. Compare balances in long-term and short-term debt and interest expense with preceding year's and investigate significant changes. (E, C, R, V, and P)			
D. Obtain summaries or copies of all notes and related agreements for the permanent file. (E, R, and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIV. NOTES PAYABLE AND LONG-TERM DEBT *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. Examine notes canceled during the period or related evidence of payment. (C and R)	______	______	______
F. Confirm significant balances outstanding at any time during the period. (E, R, and V)	______	______	______
G. Examine current notes and review compliance with restrictive loan covenants. (P)	______	______	______
H. Determine if any assets are subject to lien and obtain carrying amounts for disclosure. (P)	______	______	______
I. Examine notes for any guarantees. Be alert for related-party guarantees. All guarantee relationships should be disclosed. (P)	______	______	______
J. Separate short-term notes and the current portion of long-term debt for report classification. Categorize by type of lender (related party, banks, loan company, etc.). Determine five year maturities for all long-term obligations. (P)	______	______	______
K. Perform a reasonableness test of interest expense by multiplying average balances outstanding by average interest rates. (C)	______	______	______
L. Consider the need to impute interest on noninterest bearing notes. (V)	______	______	______
M. Test the computation of balances in capitalized lease obligations accounts. Gather information for financial statement disclosure. (V and P)	______	______	______
N. Additional procedures: ______ ______ ______	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XV. CONTINGENT LIABILITIES, CONTRACTS, AND COMMITMENTS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Contingencies exist—To determine the existence of any contingencies arising from litigation, claims and assessments which affect the financial statements or disclosures (assertions E, C, R, V, and P)
- Contracts exist—To determine the existence of any contracts affecting the financial statements or disclosures (assertions E, C, R, V, and P)
- Commitments exist—To determine the existence of any commitments affecting the financial statements or disclosures (assertions E, C, R, V, and P)
- Proper recording and disclosure—To determine that the financial statements include proper accruals and/or disclosure of the contingencies (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Discuss with management its description and evaluation of possible and existing litigation, claims and assessments, including violations of laws and regulations. (E, C, R, V, and P)	______	______	______
B. Inquire of management about agreements for future expenditures such as purchase orders, leases, employee benefit plans, plant expansion or improvements, etc. (E, C, R, and P)	______	______	______
C. Examine all available documents concerning these matters. (E, C, R, V, and P)	______	______	______
D. Request a letter from the client's attorneys regarding contingencies, commitments, and other matters. Investigate reasons for any changes in legal counsel. (C, R, V, and P)	______	______	______
E. Review minutes of directors' meetings and discuss all pertinent items with management. Make excerpts and agree to applicable working papers. (C, R, V, and P)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XV. CONTINGENT LIABILITIES, CONTRACTS, AND COMMITMENTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
F. Analyze legal expense for any undisclosed matters. (C, V, R, and P)			
G. Obtain or prepare a schedule of any purchase contracts or commitments. (C, V, R, and P)			
H. Investigate any contract or product warranties. (V and P)			
I. Obtain or prepare a schedule of open letters of credit. (P)			
J. Obtain information on any endorsements, guarantees, or indemnification of debts of others. (R and P)			
K. If considered necessary, obtain Uniform Commercial Code information and agree to notes payable and debt working papers. (P)			
L. Obtain copies and amendments for all employee benefit plans. Confirm information with actuaries, and insurance companies or other trustees. (V and P)			
M. If the work of a specialist is used in performing the audit, document the following:			
1. The professional certification, license, or other recognition of the competence of the specialist. (E)			
2. The reputation and standing of the specialist. (E)			
3. The relationship, if any, of the specialist to the client. (E, P)			
4. The nature of the work to be performed. (C, R, P)			
N. Determine whether the entity has any commitments with off-balance-sheet risk (i.e., financial guarantees and letters of credit at floating rates). For any such commitments, complete Steps G.1.-5 of the Investment Securities Tests of Balances Audit Program.			
O. Review payments to consultants and engineers for possible environmental issues.			
P. Review client notifications of fines and penalties.			

CONTRACTORS' TESTS OF BALANCES PROGRAM
XV. CONTINGENT LIABILITIES, CONTRACTS, AND COMMITMENTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
Q. Additional procedures:			
______________________			
______________________			
______________________			
______________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XVI. STOCKHOLDERS' EQUITY

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper authorization and classification—To determine that all transactions and commitments (options, warrants, rights, etc.) are properly authorized and classified (assertions E, C, R, V, and P)
- Proper recognition and cutoff—To determine that all transactions and commitments are recorded at correct amounts in the proper period (assertions E, C, and P)
- GAAP conformity—To determine that all transactions and balances are presented in the financial statements in conformity with GAAP consistently applied and accompanied by adequate disclosures (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the relevant sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E and P)	______	______	_____
B. Update or obtain a listing of all capital stock authorized, issued, outstanding, and in treasury, and all equity account transactions during the year. Reconcile to the general ledger. (E, C, R, V, and P)	______	______	_____
C. Compare balances in stockholders' equity accounts with the preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	_____
D. Trace all opening equity account balances to the opening balance sheet. (C and P)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XVI. STOCKHOLDERS' EQUITY *(Continued)*

Procedures		Done By	Date	W/P Ref.
E.	Verify outstanding stock by agreeing open stubs in the stock certificate book to the listing or confirm with the transfer agent the total issued shares and the total shares issued in the company's name. Determine that surrendered certificates have been canceled and accounted for. (E, C, R, and P)	______	______	______
F.	Inspect or confirm treasury stock certificates. (C and R)	______	______	______
G.	Determine that declared and unpaid dividends are properly recorded. Compare paid dividends to directors' minutes. (E, C, R, V, and P)	______	______	______
H.	Determine and document the nature and amount of any restrictions on equity accounts. (P)	______	______	______
I.	Inquire as to any stock options, warrants, and purchase plans at the balance-sheet date. (P)	______	______	______
J.	Obtain information for each class of stock concerning preferences, dividend requirements and arrearages, redemption or conversion rights and call provisions for disclosure. (P)	______	______	______
K.	Examine minutes, bylaws, articles of incorporation, other documents, and authorizations in support of transactions. (E, R, V, and P)	______	______	______
L.	Additional procedures: ________________ ________________ ________________ ________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XVII. RELATED-PARTY TRANSACTIONS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recognition—To identify related parties and related-party transactions (assertions E and C)
- Proper recording—To determine that the substance of such transactions is reflected in the accounts (assertions C, R, and V)
- Proper disclosure—To obtain all information necessary for disclosure (assertions C and P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the relevant sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, and P)	____	____	____
B. Make inquiries of management about related parties, obtain related-party confirmations if applicable, and inquire about any recorded or unrecorded transactions during the year. (E, C, R, V, and P)	____	____	____
C. Obtain names of stockholders and directors for evidence of related-party transactions. (E and C)	____	____	____
D. Review last year's working papers for evidence of related-party transactions. (E and C)	____	____	____
E. If this is an initial engagement, ask the predecessor auditors about related parties. (E and C)	____	____	____
F. Review minutes of stockholders' and directors' meetings for evidence of related parties. (E and C)	____	____	____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XVII. RELATED-PARTY TRANSACTIONS *(Continued)*

Procedures	Done By	Date	W/P Ref.
G. Be alert for potential related-party transactions while examining confirmations of receivables and payables, large unusual transactions and attorneys' letters. (E and C)	______	______	______
H. Obtain a list of major customers, amounts of sales during the year and amounts of receivables at year end. Agree to detail client records. Consider disclosure. (E, C, and P)	______	______	______
I. Examine supporting documents of significant related-party transactions to determine—			
1. Business purpose (V and P)	______	______	______
2. Board of directors' approval (P)	______	______	______
3. Reasonableness and consistency of amounts to be disclosed (V and P)	______	______	______
4. Financial capabilities of related parties (V)	______	______	______
J. Investigate transactions with major customers, suppliers and lenders for undisclosed relationships. (E and C)	______	______	______
K. Additional procedures:			
____________________________			
____________________________			
____________________________			
____________________________	______	______	______

Prepared by: ____________________ Date: ____________________

Reviewed by: ____________________ Date: ____________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XVIII. CONTRACT REVENUES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recognition—To determine that contract revenue transactions represent consideration applicable to contract work performed for customers in the normal course of business during the year (assertions E, R, V, and P)
- Realization of contract revenue—To determine that contract revenue transactions and billings have resulted in collections or bona fide receivables (assertions E and C)
- Recording of contract revenue—To determine that all contract revenues earned during the year are recorded and included in the financial statements (assertions E, C, and P)
- Proper classification—To determine that contract revenues are properly classified and described in the financial statements and accompanied by adequate disclosure (assertions V and P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	_____
B. Scan all source journals for large or unusual contract revenue or billing transactions, especially near year end. Examine related billing invoice and contract records. Determine that they are accounted for properly. Follow up on any unusual transactions. (E, R, V, and P)	______	______	_____
C. Obtain or prepare a schedule of monthly revenues by contract type.* (E, C, R, and V)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XVIII. CONTRACT REVENUES *(Continued)*

Procedures	Done By	Date	W/P Ref.

Practice Tip:

If the client has offices in different states, be sure to itemize contract revenues to aid in allocation for income tax calculations and returns.

D. Compare schedule to prior periods and investigate large or unusual fluctuations.* (E, C, R, and V) ______ ______ ______

E. Additional procedures:**

____

____

____

______________________________ ______ ______ ______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

* If results from tests of controls for Systems A and B are satisfactory, this step may not be necessary.

** If no tests of controls are performed, predictive analytical procedures, or other special procedures, may be necessary to verify the completeness assertion for contract revenues. Controls tests of the payroll and acquisitions and payments cycles that include tracing source journal entries to the contract cost subledger contribute evidence for verifying the completeness assertion of contract revenues.

CONTRACTORS' TESTS OF BALANCES PROGRAM

XIX. CONTRACT COSTS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recording—To determine that contract costs are properly allocable to the year (assertions E, C, and V)
- Proper recognition—To determine that all contract costs have been properly recognized (assertions E, C, R, and V)
- GAAP conformity—To determine that contract costs are in conformity with generally accepted accounting principles consistently applied (assertion P)
- Proper classification—To determine that contract costs are appropriately classified and described in the statement of income (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Compare balances in contract costs with the preceding year's. If major, unexplained variances exist, scan entries in source journals and investigate timing, size and method of recording unusual items. Discuss findings with management. (E, C, V, and P)	______	______	______
C. Determine that all costs related to contracts in progress have been recorded in the construction contract cost subledger and considered in determining the percentage of completion. (C and V)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX. CONTRACT COSTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
D. Compute gross profit percentages by contract types and compare with original bid estimates. Also, compare them to the prior year amounts and investigate unusual fluctuations. (E, C, R, and V)	______	______	______
E. Compare individual cost or expense accounts as a percentage to total costs or expenses for the following categories:			
a. Estimating and bidding expenses	______	______	______
b. Contract costs	______	______	______
c. General and administrative expenses (E, C, R, V, and P)	______	______	______
F. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XIX—A. CONSTRUCTION CONTRACTS

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Existence—To determine that contracts exist (assertion E)
- Proper recording—To determine that costs and expenses are recorded as incurred and charged to proper contracts or current operations (assertions E, C, and V)
- Completeness—To determine that contract receivables, billings, and costs and estimated earnings on uncompleted contracts, are in conformity with GAAP consistently applied (assertions C, R, V, and P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. 1. Review all major contracts in progress at balance-sheet date or closed during the period. Pertinent details should be scheduled and maintained for reference. The following information should be included:			
a. Name, job number, location and description of project.	______	______	______
b. Type of contract, e.g., fixed price, cost plus fixed-fee, guaranteed maximum price, etc.	______	______	______
c. Contract price.	______	______	______
d. Escalation features, if any.	______	______	______
e. Terms of payment.	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX—A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
f. Cancellation features.			
g. Estimated costs by principal contract components and original estimated profit.			
h. Status as to renegotiation.			
i. Unusual contract features (such as penalty for failure to complete as scheduled, abnormal performance guarantees, or bonus for early completion).			
j. Bonding and insurance requirements.			
k. Equipment rental provisions.			
2. Review and document the contractor's general policies on contract costs for the following items:			
a. Charges accumulated on cost-plus type contracts which are not reimbursable—such charges should be segregated on contractor's cost records.			
b. Excessive charges for contractor's equipment used on the job site. The rates charged should be designed to absorb all applicable costs, including but not in excess of actual overhead.			
c. Charges for rented equipment, with option to buy. Review the acquisition of construction equipment in this manner and give due consideration to wear and tear on the equipment at the job site, estimated future life, fair market value, etc., in determining the propriety of the contractor's accounting treatment.			
d. The contractor's policy with respect to overhead. The overhead applied should not be in excess of actual overhead and should not include elements of idle plant or equipment expense or other abnormal costs. Allocation of general and administrative expense to contracts in process is occasionally justified to avoid distortion of theincome of contractors using the completed contract basis of recognizing income. (C, R, V, and P)			

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
C. If the client is a general contractor and substantial portions of the project are to be undertaken by subcontractors, also examine the subcontracts and prepare a similar schedule. (C, R, V, and P)	______	______	______
D. As determined during planning, arrange for site visits to contract locations. (Any material or troublesome jobs should be visited at or near year end.) Consider the following:			
1. Obtaining estimates of percentage of completion from job foreman or superintendent and discussing job status and problems. Taking photographs is a good method of documenting visit and percentage of completion. Use of a specialist may be necessary for certain projects.[1]	______	______	______
2. Reviewing on-site security.	______	______	______
3. Obtaining a list of numbers and copies of on-site supplies of receiving reports, purchase orders, material requisitions or other accounting and operations documents and documenting on-site internal control procedures.	______	______	______
4. Taking inventory of equipment and determining if it is being utilized effectively.	______	______	______
5. Making a controlled payout.	______	______	______
6. Observing and documenting materials inventory not yet used in construction. (If significant, it may be advisable to take a physical inventory.)	______	______	______
7. Counting any cash funds at sites.	______	______	______
8. Documenting any unprocessed invoices on hand. (E, C, R, and V)	______	______	______

[1] If a specialist is used, see Section XV, Step M.

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. Obtain or prepare a schedule of contracts in progress at balance-sheet date. At a minimum, this schedule should show— — Contract name and job number. — Progress billings to date, including retentions. — Amount remaining to be billed.* — Total amended contract amount including change orders to date. — Total costs incurred to date by category, including retainage payable and any costs discovered in the search for unrecorded liabilities. (Agree to contract cost subledger by job.) — Estimated additional costs to complete by category. — Total estimated costs. — Estimated gross profit amount. — Estimated gross profit percentage. - Percentage of completion and method of determination (such as costs to date divided by total estimated cost). — Profit recognized to date. — Collections to date.* — Balance of contract receivables.* - Billings in excess of costs and estimated earnings. — Costs and estimated earnings in excess of billings. — Losses to be recognized.	______	______	______
1. Agree progress billings to date, amounts remaining to be billed, and total amended contract amounts to confirmations in accounts receivable working papers.	______	______	______
2. Costs incurred to date:			
a. For all contracts, trace costs incurred to date to construction contract cost subledger. Payroll should be traced to payroll summaries that reconcile to the general ledger.	______	______	______

* These amounts may be included on a separate schedule or on contract receivables working papers.

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
b. If tests of controls have not been performed (System C or System's Walk-through Approach), select _____ contracts completed during the year and _____ contracts in progress at the balance-sheet date and perform the following:			
(1) Select _____ representative entries on the construction contract cost subledger for payroll, materials, equipment and overhead charges and trace to appropriate source journal. Examine appropriate underlying support for charges. For subcontractor costs, perform the following:			
i. Examine the contractor's agreements with subcontractors.	_____	_____	_____
ii. Compare charges made by subcontractor with contract agreement or purchase orders issued by general contractor.	_____	_____	_____
iii. Compare change orders for terms of payment and method of billing with contract or purchase order.	_____	_____	_____
iv. Review for liens or claims of the subcontractor.	_____	_____	_____
v. Compare confirmation replies from subcontractor to amounts included in construction contract cost subledger.	_____	_____	_____
vi. Compare subcontract percentage of completion to overall contract percentage of completion.	_____	_____	_____
(2) Select _____ representative entries from all source journals affecting construction contract cost subledger and trace to the subledger to determine posting to the proper job in the proper period and amount.	_____	_____	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
(3) Compare total estimated costs, and estimated costs to complete, on all significant uncompleted contracts to supporting documentation. Review summary and detail estimates and change orders, test mathematical and clerical accuracy of the documentation, review correspondence files and discuss estimates with owner or manager and other financial management personnel. Evaluate the reasonableness of estimated costs. (Note--This step may not be necessary if results of System A or B tests of controls are satisfactory.)	_____	_____	_____
3. Review the construction contract cost subledger and investigate any unusual entries. Reconcile the subledger to the general ledger and to the schedules for contracts in process and completed contracts.	_____	_____	_____
4. Review and recalculate payroll overhead allocations in the subledger on a test basis. Determine if the allocations are consistent with actual payroll overhead incurred.	_____	_____	_____
5. Review and test the allocations for other job costs including any job overhead.	_____	_____	_____
6. Determine that costs incurred to date include any amounts found in the audit of accounts payable.	_____	_____	_____
7. Determine that costs incurred to date do not include:			
a. Charges on cost-plus type contracts that cannot be billed.	_____	_____	_____
b. Excessive charges for owned equipment and certain rental payments where the company has an option to buy.	_____	_____	_____
c. Overhead charges which are not directly related to contracts.	_____	_____	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
8. Estimated additional costs and total estimated costs:			
a. For all major contracts, obtain a schedule that compares the original contract and total cost amounts with the amounts at balance-sheet date. Investigate any unusual variations with engineering personnel who are responsible for the specific contracts. Document reasons for the changes and the dollar amounts involved.	______	______	______
b. Select _____ major contracts and perform the following:			
(1) Obtain a schedule of costs incurred to date and estimated additional costs by job phase or cost category.	______	______	______
i. Compare total estimated costs shown above with original bid estimate by individual item. Make sure any possible penalties for late completion are included in estimated costs.	______	______	______
ii. Investigate any unusual variations with engineering personnel who are responsible for the specific contracts. Document the reasons for the changes and the dollar amounts involved.	______	______	______
(2) Verify the reasonableness of estimated costs to complete by reference to the following:			
i. Information obtained during job site visits, such as knowledge of a potential problem.	______	______	______
ii. Commitment file for uncompleted subcontracting work.	______	______	______
iii. Open purchase order file.	______	______	______
iv. A review of reports of independent architects and engineers and any interim financial data.	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
v. Discussions with contractor's engineering personnel and project managers who are responsible for the contracts.	______	______	______
vi. Comparison with actual costs incurred in subsequent period.	______	______	______
9. Estimated gross profit amount and estimated gross profit percentage:			
a. On all major contracts, compare the estimated gross profit percentage with actual historical gross profit percentages obtained on similar contracts. Compare percentage of completion based on estimated costs, cubic yards, or engineering or architectural estimates to estimates obtained during job site visits. Obtain explanations for any unusual variations.	______	______	______
b. For all major contracts in progress at the previous balance-sheet date, compare the estimated gross profit amount and percentage at that date with current data, including completed contract schedules. Determine if the estimates previously used were reliable.	______	______	______
c. Determine that incentive bonuses, provisions for early or late completion, and similar items are taken into account in computing the estimated profits on contracts. As an overall test of contract profitability, compare the amount of the contract awarded to the client with the amounts bid by other contractors for a sample of _____ major contracts. Investigate significant differences.	______	______	______
d. Investigate any contract which shows an abnormally low gross profit and evaluate the possibility of a potential loss.	______	______	______
e. For any contract with a potential loss, full provision for the loss should be made in the current period, regardless of the contractor's method of recognizing contract profits. However, if there is a close relationship between profitable and unprofitable contracts, such as in the case of contracts that are parts of the same project, the group may be treated as a unit in determining the necessity for a provision for loss.	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
f. Determine that the percentage of completion on the contracts in progress schedule is reasonable and a true measure of actual contract completion.	______	______	______
g. Consider propriety of disregarding certain costs as a measure of performance in the early stages of a contract for the purpose of determining estimated profits. All or a portion of the cost of materials and subcontracts could be excluded if it appears that such exclusion would result in more meaningful periodic allocation of income. Examples of such situations include (1) when substantial quantities of materials may have been accumulated on a job site but not used or (2) when engineering or architectural fees have been incurred which represent 15% of total estimated costs when work performed on the contract is only 5% complete. (C, R, and V)	______	______	______

F. 1. Obtain or prepare a detailed schedule of contracts completed at balance-sheet date. Use the following column headings:
— Contract name and number.
— Contract description.
— Cash received.*
— Accounts receivable.*
— Total revenues:
  — Recognized in the prior period.
  — Recognized in the current period.
— Total costs:
  — Recognized in the prior period.
  — Recognized in the current period.
— Gross profit amount:
  — Recognized in the prior period.
  — Recognized in the current period.
— Gross profit percentage.
	______	______	______

2. Agree contracts to the contract receivables working papers.	______	______	______
3. Agree total costs to the contract cost subledger.	______	______	______

* These amounts may be included on a separate schedule or in the contract receivables working papers.

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
4. For contracts in progress at the previous balance-sheet date, compare the estimated gross profit amount at that date to the actual gross profit to determine if estimates were reliable.	______	______	______
5. Determine that contracts are completed. A contract may be considered complete when it is substantially completed, that is, when remaining costs are not significant in amount. The company's policy must be consistent.	______	______	______
6. Review pertinent details extracted from the contract files in Steps B and C above. Determine that contract gross profit has been reasonably stated.	______	______	______
7. Maintain completed contract data in permanent file for use as a reference on future engagements.	______	______	______
(E, C, R, and V)			
G. Perform the following for contract revenues and costs:			
1. Obtain or prepare a schedule of contract revenues and costs for completed and uncompleted contracts. Reconcile to the general ledger.	______	______	______
2. Analyze gross profit margins on all significant completed contracts and investigate any unusually high or low profit margins.	______	______	______
a. For uncompleted contracts, compare profit margins with the final results in similar closed contracts.	______	______	______
b. Compare the final profit on completed contracts with the estimated profit on those contracts in the prior year to evaluate the company's historical experience.	______	______	______
c. If major, unexplained variances exist, scan entries in source journals and investigate timing, size and method of recording unusual items. Discuss findings with management.	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XIX — A. CONSTRUCTION CONTRACTS *(Continued)*

Procedures	Done By	Date	W/P Ref.
3. For _____ contracts, compare date of progress billings cutoff to date of cutoff for job cost postings. Compare billings and retainage with contract terms. Follow up on significant amounts of completed but unbilled work, change orders, etc. and consider recording. (E, C, R, and V)	_____	_____	_____
H. Obtain or prepare a list of any contracts accepted on which no work has been performed:			
1. Review the original bid estimate and estimated profit.	_____	_____	_____
2. Compare with bids entered by other contractors and investigate any significant differences.	_____	_____	_____
3. Evaluate the impact, if any, on the financial statements and our report. (C and P)	_____	_____	_____
I. Additional procedures:			
________________________________			
________________________________			
________________________________			
________________________________	_____	_____	_____

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XX. PAYROLL

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recording—To determine that reported payroll expenses are properly allocable to the year (assertions E, C, and V)
- Proper recognition—To determine that all payroll expenses that should be recognized have been recognized (assertions E, C, R, and V)
- GAAP conformity—To determine that the income statement is prepared in conformity with GAAP consistently applied (assertion P)
- Proper classification—To determine that payroll expenses are appropriately classified and described in the income statement (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	_____
B. Scan source journals for unusual transactions to determine that they are recorded properly. (E, C, R, and V)	______	______	_____
C. Prepare a schedule of monthly payroll costs by department. (If results from tests of controls for Systems A and B are satisfactory, this step may not be necessary.) (E, C, R, V, and P)	______	______	_____

CONTRACTORS' TESTS OF BALANCES PROGRAM
XX. PAYROLL *(Continued)*

Procedures	Done By	Date	W/P Ref.

> **Practice Tip:**
>
> If the client has offices in different states, be sure to itemize contract revenues to aid in allocation for income tax calculations and returns.

D. Compare schedules to prior periods, budget and production records and investigate significant fluctuations.* (E, C, R, and V)	______	______	______
E. Reconcile gross wages on payroll tax returns to general ledger.* (E, C, R, and V)	______	______	______
F. Additional procedures:			
________________________________			
________________________________			
________________________________			
________________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

* If results from tests of controls for Systems A and B are satisfactory, these steps may not be necessary.

CONTRACTORS' TESTS OF BALANCES PROGRAM

XXI. OTHER REVENUES AND EXPENSES

Financial Statement Assertions

Existence or occurrence (E)
Completeness (C)
Rights and obligations (R)
Valuation or allocation (V)
Presentation and disclosure (P)

Objectives

- Proper recording—To determine that other revenues and expenses are properly allocable to the year (assertions E, C, and V)
- Proper recognition—To determine that other revenues and expenses have been properly recognized (assertions E, C, R, and V)
- GAAP conformity—To determine that the income statement is prepared in conformity with GAAP consistently applied (assertion P)
- Proper classification—To determine that other revenues and expenses are appropriately classified and described in the income statement (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Review the results of the applicable sections of the Contractors' System's Walk-Through Documentation Form, or the Contractors' Internal Controls Questionnaire and Contractors' Tests of Controls Programs and assess their impact on the tests of balances. (E, C, R, and V)	______	______	______
B. Obtain or prepare schedules of other revenues and expenses and—	______	______	______
1. Foot and agree to the general ledger. (E, V, and P)	______	______	______
2. Vouch as considered necessary. (E, C, and V)	______	______	______
3. Investigate large or unusual items. (E, V, and P)	______	______	______
4. Compare balances with preceding year's and investigate significant changes. (E, C, R, V, and P)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XXI. OTHER REVENUES AND EXPENSES *(Continued)*

Procedures	Done By	Date	W/P Ref.

Practice Tip:

Be alert to potential mispostings in other revenue and expense accounts. Clients often post tax payments to miscellaneous expense accounts because there is no general ledger account set up for the payments.

Practice Tip:

If the client has offices in different states, be sure to itemize other revenues to aid in allocation for income tax calculations and returns.

Procedures	Done By	Date	W/P Ref.
C. Scan all source journals for large or unusual transactions and determine they are properly recorded.* (E, C, R, V, and P)	______	______	_____
D. Obtain or prepare, foot, and tie to the general ledger, a detailed analysis of charges and credits to expense accounts with unusual fluctuations from prior years, and the following:*			
1. Officers' salaries and bonuses. Determine board of directors' authorization.	______	______	_____
2. Officers' expenses (for tax return).	______	______	_____
3. Contributions (tax-deductible).	______	______	_____
4. Rents (look for potential capital leases).	______	______	_____

* Satisfactory results from tests of controls will allow testing of less detail. Stronger controls (System A or B) may permit omission of detailed analysis except for analytical procedures follow-up and certain accounts affecting financial statement disclosures or income tax return preparation.

CONTRACTORS' TESTS OF BALANCES PROGRAM
XXI. OTHER REVENUES AND EXPENSES *(Continued)*

Procedures	Done By	Date	W/P Ref.
5. Legal and professional services (look for any payments that may represent undisclosed legal matters).	______	______	______
6. Taxes (for tax return).	______	______	______
7. Repairs and maintenance (look for capitalizable items).	______	______	______
8. Supplies and small tools (look for capitalizable items).	______	______	______
9. Travel and entertainment expenses (look for adequate documentation).	______	______	______
10. Property tax expense (for unrecorded property).	______	______	______
11. Miscellaneous expense (items over $________).	______	______	______
12. Other accounts:			
____________________________________			
____________________________________			
____________________________________			
____________________________________	______	______	______

Practice Tip:

An analysis of trial balance expense accounts can prove to be a valuable tool for both the audit and any tax engagements you have with the client. At tax time it's always beneficial to have the details of expenses required to prepare the client's tax return. It will always save you time (and money) to prepare these schedules during the audit engagement.

CONTRACTORS' TESTS OF BALANCES PROGRAM
XXI. OTHER REVENUES AND EXPENSES *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. As considered necessary, obtain supporting vendor invoices or other documentation to determine that charges or credits to the accounts above apply to the company and are recorded in the accounts above at the proper amount in the proper period (primarily System C). Documentation for immaterial account balances need not be examined. (E, C, R, and V)	______	______	______
F. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

CONTRACTORS' TESTS OF BALANCES PROGRAM

XXII. RISKS AND UNCERTAINTIES

Financial Statement Assertions

Presentation and disclosure (P)

Objectives

- GAAP conformity—To determine that the income statement is prepared in conformity with GAAP consistently applied (assertion P)

Procedures	Done By	Date	W/P Ref.
A. Obtain or prepare a listing of any estimates used in determining the carrying values of assets and liabilities and gain and loss contingencies that are sensitive to change (e.g. costs in excess of billings, billings in excess of costs, costs to complete). Using information obtained in other audit areas and through inquiries of management, determine that the listing is complete and accurate. (P)	______	______	______
B. Consider whether it is at least reasonably possible that a material change in the estimate will occur in the near term. (P)	______	______	______
C. If such a situation is identified, review support for the calculation of the effect of the change (e.g. schedule of contract costs). (P)	______	______	______
D. Obtain or prepare a listing of the following types of concentrations, if any, that existed at the balance-sheet date and that make the entity vulnerable to risk of near-term severe impact (severe impact is a higher threshold than materiality, but less than catastrophic). Using information obtained in other audit areas and through inquiries of management, determine that the listing is complete and accurate: • volume of business transacted with a particular customer, supplier, or lender • revenues from particular products or services • available sources of supply of materials, labor or services, or of licenses or other rights used in operations • market or geographic area in which the entity conducts its operations (P)	______	______	______

CONTRACTORS' TESTS OF BALANCES PROGRAM
XXII. RISKS AND UNCERTAINTIES *(Continued)*

Procedures	Done By	Date	W/P Ref.
E. Determine whether it is at least reasonably possible that an event will occur in the near term that would cause the severe impact. (P)	______	______	______
F. Determine whether disclosures required by SOP 94-6 are completely and accurately included in the financial statements. (Refer to the Small Business Audit Disclosure and Reporting Checklist in Chapter 9.) (P)	______	______	______
G. Additional procedures:			
______________________________			
______________________________			
______________________________			
______________________________	______	______	______

Workpapers and Correspondence

APPENDIX 7A

WORKING PAPERS AND CORRESPONDENCE

Table of Contents

APPENDIX 7A

WORKING PAPERS AND CORRESPONDENCE

7A.000 PURPOSE

7A.001 Working papers should be prepared to document the results of procedures performed and judgments made in designing tests to accomplish the objectives of an engagement. Each working paper should clearly document such procedures. Work performed should *not* be documented in the client's records.

7A.002 Illustrative working papers and correspondence have been included to facilitate documentation of evidence collected for construction contractor audit engagements. Applicable papers should be selected and modified based on the objectives and circumstances of each engagement.

7A.100 AUTHORITATIVE PRONOUNCEMENTS

7A.101 AICPA Statement on Auditing Standards (SAS) No. 41, *Working Papers* (AU 339), states that auditors should prepare and maintain working papers designed for the specific circumstances of each engagement. The working papers constitute the principal record of the work performed and the conclusions reached.

7A.102 SAS No. 67, *The Confirmation Process* (AU 330), discusses issues such as considering the relationship of confirmation procedures to the assessment of audit risk, designing appropriate confirmation requests, performing alternative procedures for nonresponses, and evaluating the results of the confirmation procedures.

7A.103 Audit Risk. The auditor's assessment of audit risk directly affects the nature, timing, and extent of auditing procedures. Because third-party confirmations usually provide higher-quality audit evidence than is available from internal documents, the auditor might decide to perform confirmation procedures to reduce audit risk to an acceptable low level.

7A.104 Designing the Confirmation Request. Confirmation requests should be carefully designed to ensure that the information confirmed is appropriate for the financial statement assertion being addressed. SAS No. 67 recommends that the auditor consider these other factors: (1) form of the confirmation, (2) prior experience on the audit or on similar engagements, (3) nature of the information being confirmed, and (4) person to whom the confirmation request is directed.

7A.105 Performing the Confirmation Procedures. SAS No. 67 suggests that auditors should follow-up with the respondent when they cannot verify the source of the confirmation reply, such as one received by facsimile. It also suggests, for nonreplies to positive confirmations, that alternative procedures, such as examining evidence of the subsequent collection of an accounts receivable, be performed.

7A.106 As a final step in the confirmation process, the auditor should consider the overall results of the confirmation procedures — whether the confirmations and alternative procedures were reliable, the nature of any exceptions, and evidence provided by other procedures.

7A.200 CLIENT-PREPARED WORKING PAPERS

7A.201 Whenever feasible, the client should be asked to prepare as many working paper schedules as possible. The illustrative working papers should be used for guidance. Copies of the client's internal schedules may be used if practical. If economically feasible, some working paper schedules may be prepared using the client's EDP system.

7A.202 If a client's employees don't have the time or capabilities for preparing working paper schedules, a firm paraprofessional or outside temporary help may be used to minimize the cost to the client. All charges for outside assistance should be billed directly to the client.

7A.203 All working paper schedules prepared by the client should be marked "PBC" in the upper right hand corner. All "PBC" schedules should be footed, agreed to the general ledger and traced on a test basis to underlying documentation.

7A.300 WORKING PAPER FILES CONTENTS

7A.301 The following working paper files, or their equivalent, should be maintained as applicable to the nature of each engagement:

- Planning and Supervision File (section 7A.302)
- Current Engagement File (section 7A.303)
- Permanent File (section 7A.304)
- Tax File, where applicable (section 7A.305)

Planning and Supervision File

7A.302 The following list includes the documentation that normally will be included in the Planning and Supervision File for construction contractor audit engagements.

1. Client Acceptance and Continuance Form (section 4.501)
2. Communications with predecessor auditors (section 7A.601)

3. Engagement letter (section 4.502)
4. Contractors' Risk of Potential Misstatements Evaluation Form (section 5.601)
5. Contractors' Planning Matrix (section 5.602)
6. Audit Planning Memorandum (section 4.506)
7. Materiality Computation Form (section 4.507)
8. Client representation letter (section 8.905)
9. Supervision and review checklists (sections 8.908 and 8.910)
10. EDP documentation (section 6.300)
11. Budgeting and time control documents (sections 4.503–4.505)

Current Engagement File

7A.303 In addition to a working trial balance, or a summary trial balance and lead schedules, and any outside correspondence, the Current Engagement File should contain at least the following:

- Internal control flowcharts and Contractors' Internal Controls Questionnaire (section 6.200) or Contractors' System's Walk-Through Documentation Form (section 5.607)
- Summary of Possible Journal Entries Form (section 8.904)
- Sampling documentation for tests of balances:
  - Model Approach Working Paper (section 5.603)
  - Audit Sample Evaluation Form (section 5.604)
- Contractors' Tests of Controls Programs (section 6.400)
- Internal Control Structure Reportable Conditions Form (section 6.500)
- Contractors' Tests of Balances Audit Program (section 7.400)
- Consultation Form(s) (section 8.909)
- Financial Statements and Notes Checklist and Supplement for Construction Contractors (sections 9.700 and 9.800)

Permanent File

7A.304 The Permanent File should contain information of continuing engagement significance. It may include, among other things —

A. Document summaries or copies

1. Articles of incorporation or partnership
2. Corporate or partnership bylaws
3. Long-term construction contracts

4. Bonus, profit sharing plan, and employment agreements
5. Holding company agreements
6. Labor agreements
7. Long-term debt agreements
8. Sample bond certificates
9. Lease agreements
10. Stock permits
11. Stock option and incentive plans
12. Stock repurchase agreements
13. Operating or management agreements
14. Agreements with bonding underwriters
15. Regulatory commission orders
16. Patent agreements

B. Continuing analyses

1. Listing of depositories
2. Long-term investments
3. Depreciation schedules
4. Amortization schedules
5. Features of subordinated or long-term debt
6. Tests of compliance with debt covenants
7. Summary of lease commitments
8. Descriptions and analyses of capital stock
9. Summary of capital stock reserved
10. Schedule of stock options
11. List of principal shareholders and their holdings
12. Record of capital stock book examination
13. Additional paid-in capital
14. Retained earnings

C. Accounting policies

1. Memoranda relating to important or continuing accounting problems
2. Memoranda detailing firm positions on significant accounting treatments expressed to the client
3. Client studies concerning efficiency, procedures, etc.
4. Organization data
5. Accounting or procedures manuals
6. Chart of accounts
7. Internal control or accounting system documentation

Tax File

7A.305 Where applicable, the Tax File should contain—

1. Current and prior-year income tax returns
2. A tax return preparation checklist

3. Contractors' Supplement to Tax Return Preparation Checklist (Section 18.400)
4. Income tax working papers not included in the Current Engagement File
5. A tax planning checklist, tax working papers or memos
6. Revenue agent reports

7A.400 INDEXING WORKING PAPERS

7A.401 A working trial balance, or a summary trial balance and lead schedules, should be cross-referenced to all working papers. The lead schedule method will normally be used for larger or more complex engagements.

7A.402 Working papers will normally be indexed on the lower right-hand corner in red pencil. Following is an illustrative indexing system:

Assets

A	Cash
B	Accounts, notes and contracts receivable
C	Inventories
D	Prepaid expenses
E	Securities and investments
K	Fixed assets and accumulated depreciation
M	Other assets
O	Intercompany accounts

Liabilities and Equity

AA	Notes payable and long-term debt
BB	Accounts and subcontractors payable
CC	Accrued expenses
DD	Income taxes
EE	Deposits payable
LL	Other liabilities
QQ	Commitments and contingencies
SS	Equity

Operations

ICQ	Contractors' Internal Controls Questionnaire
SWT	Contractors' System's Walk-Through Documentation Form
TOC	Contractors' Tests of Controls Programs
TOB	Contractors' Tests of Balances Audit Program
10	Contract revenues
20	Contract costs
30	General and administrative expenses
40	Other income
50	Other expenses
60	Other

Permanent File

PF Continuing analyses from outline above (for example, PFB.4)

Illustrative Indexing

Lead sheet — Fixed assets	K
Summary of additions and deletions	K-1
Individual schedules of additions and deletions	$\frac{\text{K-1}}{1}$ $\frac{\text{K-1}}{2}$
Supporting documents for individual schedules	$\frac{\text{K-1}}{\text{1-1}}$ $\frac{\text{K-2}}{\text{1-2}}$

7A.500 ILLUSTRATIVE CORRESPONDENCE

The accompanying illustrative confirmation requests and other correspondence should be used as guides and modified for specific engagement circumstances. They should, wherever possible, be typed on the client's letterhead. All correspondence should be mailed by the auditor. All replies should be returned directly to the auditor in enclosed, prestamped, preaddressed envelopes. Copies of all correspondence should be retained for future reference and/or mailing second requests.

7A.600 CONTRACTORS' CONFIRMATION PACKAGE

7A.601 LETTER TO PREDECESSOR ACCOUNTANTS BEFORE SUBMITTING ENGAGEMENT PROPOSAL

[CPA Firm Letterhead]

[Date]

____

____

____

Our firm was requested by ________________ [name(s)], the ________________ [title(s)] of _____ _________ [client's name], to submit a proposal to audit the company's financial statements for the year ending ______ [balance-sheet date]. We have been authorized by him/her to communicate directly with your firm and he/she has informed us that you have received his/her authorization to answer our inquiries.

The following are the matters we would appreciate your answering prior to our submission of a proposal:

1. What was the client's reason for changing auditors (or accountants)?

2. Were there any disagreements over accounting principles or disclosure requirements?

3. Were there any disagreements over auditing or engagement procedures or scope limitations?

4. Were there any disagreements over fees?

5. Were there any disagreements over the quality of the company's accounting personnel?

6. Were there any disagreements over the company's internal control system or the necessity for its betterment?

7. Were there any management integrity problems such as, but not limited to:

   a. Desire for low taxable income?
   b. Desire for favorable earnings?
   c. Management reputation problems?
   d. Other?

Please explain your underlying reasons in connection with any of the above questions if applicable.

LETTER TO PREDECESSOR ACCOUNTANTS BEFORE SUBMITTING ENGAGEMENT PROPOSAL
(continued)

All answers to this letter will be held in the strictest confidence and will be used only to evaluate our decision about whether or not to submit any engagement proposal. If we are retained by ________________ [client's name], we will submit a request for a conference, at your convenience, to enable us to examine your working papers.

Thank you for your cooperation.

Very truly yours,

____

[Engagement Partner's Signature]

____

[Firm Name]

7A.602 STANDARD FORM TO CONFIRM ACCOUNT BALANCE INFORMATION WITH FINANCIAL INSTITUTIONS

ORIGINAL
To be mailed to accountant

CUSTOMER NAME

Financial Institution's Name and Address [ ]

[ ]

We have provided to our accountants the following information as of the close of business on ______________, 19___, regarding our deposit and loan balances. Please confirm the accuracy of the information, noting any exceptions to the information provided. If the balances have been left blank, please complete this form by furnishing the balance in the appropriate space below.* Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other deposit and loan accounts we may have with you comes to your attention, please include such information below. Please use the enclosed envelope to return the form directly to our accountants.

1. At the close of business on the date listed above, our records indicated the following deposit balance(s):

ACCOUNT NAME	ACCOUNT NO.	INTEREST RATE	BALANCE*

2. We were directly liable to the financial institution for loans at the close of business on the date listed above as follows:

ACCOUNT NO./ DESCRIPTION	BALANCE*	DATE DUE	INTEREST RATE	DATE THROUGH WHICH INTEREST IS PAID	DESCRIPTION OF COLLATERAL

(Customer's Authorized Signature) (Date)

The information presented above by the customer is in agreement with our records. Although we have not conducted a comprehensive, detailed search of our records, no other deposit or loan accounts have come to our attention except as noted below.

(Financial Institution Authorized Signature) (Date)

(Title)

EXCEPTIONS AND/OR COMMENTS

Please return this form directly to our accountants: [ ]

[ ]

* Ordinarily, balances are intentionally left blank if they are not available at the time the form is prepared.

Approved 1990 by American Bankers Association, American Institute of Certified Public Accountants, and Bank Administration Institute. Additional forms available from: AICPA – Order Department, P.O. Box 1003, NY, NY 10108-1003

D451 5951

7A.603 BANK CUTOFF STATEMENT REQUEST

[Client's Letterhead]

[Date]

____
____
____

In connection with an audit of the financial statements of ____________ [name of client] as of __________ [balance-sheet date] and for the __________ [period] then ended, we request that you send the following information directly to our auditors, __________ [name and address of auditors] as of the close of business on __________ [balance-sheet date]:

1. The information requested on the enclosed standard form(s) to confirm account balance information with your financial institution.

2. For the account numbers listed below, statement(s) of our account(s) and the related paid checks for the period from __________ [balance-sheet date] to __________ [2 weeks subsequent to the balance-sheet date] inclusive.

Account Number	Account Name
__________________	__________________
__________________	__________________
__________________	__________________

Very truly yours,

____

[Client's Authorized Signature]

Notes to User:

(1) The request should be sent at least ten days before the balance-sheet date so the bank will be able to provide the information requested and to render the cutoff statements as requested. If the request does not reach the bank before the cutoff date, the cutoff statement will include transactions after that date.

BANK CUTOFF STATEMENT REQUEST
(continued)

(2) The letter may also include requests for—

- Confirmation of all securities or other items held for the client's account as of the closing date for collection or safekeeping, or as agent or trustee (a listing should be provided including titles and account numbers).
- Confirmation of the list of authorized signers for the above accounts. (This may have been previously requested at a preliminary date in connection with the assessment of control risk.)

(3) This letter should be addressed to a financial institution official who is responsible for the financial institution's relationship with the client or is knowledgeable about the transactions or arrangements. Some financial institutions centralize this function by assigning responsibility for responding to confirmation requests to a separate function. Independent auditors should ascertain the appropriate recipient.

7A.604 CONFIRMATION LETTER TO FINANCIAL INSTITUTION FOR CONTINGENT LIABILITIES

[Client's Letterhead]

[Date]

______________________ [1]

____

____

In connection with an audit of the financial statements of ____________________ [name of client] as of ___________ [balance-sheet date] and for the ___________ [period] then ended, we have advised our independent auditors of the information listed below, which we believe is a complete and accurate description of our contingent liabilities, including oral and written guarantees, with your financial institution. Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other contingent liabilities, including oral and written guarantees, between _________________ [name of client] and your financial institution comes to your attention, please include such information below.

Name of Maker	Date of Note	Due Date	Current Balance

Interest Rate	Date Through Which Interest Is Paid	Description of Collateral	Description of Purpose of Note

Information related to oral and written guarantees is as follows:

____

____

____

____

____

Please confirm whether the information about contingent liabilities presented above is correct by signing below and returning this directly to our independent auditors [name and address of CPA firm].

Very truly yours,

____

[Client's Authorized Signature]

CONFIRMATION LETTER TO FINANCIAL INSTITUTION FOR CONTINGENT LIABILITIES
(continued)

Dear [CPA Firm]:

The above information listing contingent liabilities, including oral and written guarantees, agrees with the records of this financial institution.[2] Although we have not conducted a comprehensive, detailed search of our records, no information about other contingent liabilities, including oral and written guarantees, came to our attention. [Note exceptions below or in an attached letter.]

[Name of Financial Institution]

By:
[Officer]

[Title]

[Date]

Notes to User:

[1] This letter should be addressed to a financial institution official who is responsible for the financial institution's relationship with the client or is knowledgeable about the transactions or arrangements. Some financial institutions centralize this function by assigning responsibility for responding to confirmation requests to a separate function. Independent auditors should ascertain the appropriate recipient.

[2] If applicable, comments similar to the following may be added to the confirmation reply by the financial institution: "This confirmation does not relate to arrangements, if any, with other branches or affiliates of this financial institution." Information should be sought separately from such branches or affiliates with which any such arrangements might exist.

7A.605 CONFIRMATION LETTER FOR COMPENSATING BALANCES

[Client's Letterhead]

[Date]

________________ 1
____
____

In connection with an audit of the financial statements of ________________ [name of client] as of ________ [balance-sheet date] and for the ____________ [period] then ended, we have advised our independent auditors that, as of the close of business on ____________ [balance-sheet date], there were (were not) compensating balance arrangements as described in our agreement dated ________. Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other compensating balance arrangements between ____________________ [name of client] and your financial institution comes to your attention, please include such information below. Withdrawal by ____________________ [name of client] of the compensating balance was (was not) legally restricted at ________ [balance-sheet date]. The terms of the compensating balance arrangements at _______ [balance-sheet date] were:

____

Example:

The Company has been expected to maintain an average compensating balance of 20 percent of its average loan outstanding, as determined from the financial institution's ledger records adjusted for estimated average uncollected funds.

In determining compliance with compensating balance arrangements, the Company uses a factor for uncollected funds of ___________________ [business-calendar] days.[2]

There were the following (no) changes in the compensating balance arrangements during the ________ [period] and subsequently through the date of this letter.

The Company was (was not) in compliance with the compensating balance arrangements during the ________ [period] and subsequently through the date of this letter.

There were the following (no) sanctions (applied or imminent) by the financial institution because of noncompliance with compensating balance arrangements.[3]

During the ____________ [period], and subsequently through the date of this letter, no (the following) compensating balances were maintained by the Company at the financial institution on behalf of an affiliate, director, officer, or any other third party and no (the following) third party maintained compensating balances at the bank on behalf of the Company. [Withdrawal of such compensating balances was (was not) legally restricted.]

CONFIRMATION LETTER FOR COMPENSATING BALANCES
(continued)

Please confirm whether the information about compensating balances presented above is correct by signing below and returning this letter directly to our independent auditors, ______________________________ __________ [name and address of auditors].

Very truly yours,

____
[Client's Authorized Signature]

Dear [CPA Firm]:

The above information regarding the compensating balances with this financial institution agrees with the records of this financial institution.[4] Although we have not conducted a comprehensive, detailed search of our records, no information about other compensatory balance arrangements came to our attention. [Note exceptions below or in an attached letter.]

____
____
____
____
____

____
[Name of Financial Institution]

By: ______________________________
[Officer]

____
[Title]

____
[Date]

CONFIRMATION LETTER FOR COMPENSATING BALANCES
(continued)

Notes to User:

1 This letter should be addressed to a financial institution official who is responsible for the financial institution's relationship with the client or is knowledgeable about the compensating balance arrangements. Some financial institutions centralize this function by assigning responsibility for responding to confirmation requests to a separate function. Independent auditors should ascertain the appropriate recipient.

2 Not applicable if compensating balances are based on the financial institution's ledger records without adjustment for uncollected funds. If some other method is used for determining collected funds for compensating balance purposes, the method used should be described.

3 Applicable only if the financial institution has applied sanctions during the period or has notified the Company that sanctions may be applied. Indicate details.

4 If applicable, comments similar to the following may be added to the confirmation reply by the financial institution: "This confirmation does not relate to arrangements, if any, with other branches or affiliates of this financial institution." Information should be sought separately from such branches or affiliates with which any such arrangements might exist.

7A.606 CONFIRMATION LETTER FOR CREDIT LINES

[Client's Letterhead]

[Date]

________________ 1

____

____

In connection with an audit of the financial statements of ________________ [name of client] as of _______ [balance-sheet date] and for the ________ [period] then ended, we have advised our independent auditors of the information listed below, which we believe is a complete and accurate description of our line of credit from your financial institution as of the close of business on _______ [balance-sheet date]. Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other lines of credit comes to your attention, please include such information below.

The Company has available at the financial institution a line of credit totaling $__________. The current terms of the line of credit are contained in the letter dated ________. The related debt outstanding at the close of business on ________ [balance-sheet date] was $_________.

The amount of the unused line of credit, subject to the terms of the related letter, at ________ [balance-sheet date] was $_________.

The interest rate at the close of business on _______ [balance-sheet date] was __________%.

Compensating balance arrangements are: ____

____

____

____

This line of credit supports commercial paper (or other borrowing arrangements) as described below:

____

____

____

____

Please confirm whether the information about lines of credit presented above is correct by signing below and returning this letter directly to our independent auditors, [name and address of auditors].

Very truly yours,

____

[Client's Authorized Signature]

CONFIRMATION LETTER FOR CREDIT LINES
(continued)

Dear [CPA Firm]:

The above information regarding the line of credit arrangements agrees with the records of this financial institution.[2] Although we have not conducted a comprehensive, detailed search of our records, no information about other lines of credit came to our attention. [Note exceptions below or in an attached letter.]

____
[Name of Financial Institution]

By: ______________________________
[Officer]

____
[Title]

____
[Date]

---

[1] This letter should be addressed to a financial institution official who is responsible for the financial institution's relationship with the client or is knowledgeable about the lines of credit. Some financial institutions centralize this function by assigning responsibility for responding to confirmation requests to a separate function. Independent auditors should ascertain the appropriate recipient.

[2] If applicable, comments similar to the following may be added to the confirmation reply by the financial institution: "This confirmation does not relate to arrangements, if any, with other branches or affiliates of this financial institution." Information should be sought separately from such branches or affiliates with which any such arrangements might exist.

7A.607 ACCOUNTS RECEIVABLE CONFIRMATION POSITIVE REQUEST

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. Please confirm the balance due us of $_____________ as of ____________ [balance-sheet date]. Also, if the amount is not in agreement with your records, please explain below.

After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope. Do not send payments to the auditors.

Very truly yours,

____

[Client's Authorized Signature]

The amount due you of $_____________ as of ____________ [balance-sheet date] agrees (does not agree) with our records. The reason it does not agree is:

____
____
____
____

Signed: ____ Date: __________________

[Name and Title]

7A.608 ACCOUNTS RECEIVABLE CONFIRMATION NEGATIVE REQUEST

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ______________________________________ [name and address of auditors], are conducting an audit of our financial statements. Our records indicate you owe us $____________ as of ____________ [balance-sheet date].

If your records <u>do not</u> agree, please explain the differences below and, after signing and dating your reply, please mail it directly to our auditors in the enclosed envelope. Do not send payments to the auditors.

Very truly yours,

____

[Client's Authorized Signature]

Our records indicate we owe you $____________ as of ____________ [balance-sheet date].

The reason it does not agree is:

____
____
____
____

Signed: ______________________________________ Date: __________________

[Name and Title]

7A.609 CONSTRUCTION INDUSTRY CONTRACT RECEIVABLE CONFIRMATION REQUEST TO OWNER, GENERAL CONTRACTOR, OR OTHER BUYER

[Client's Letterhead)

[Date]

____
____
____

Re:______________________________ [description of contract]

Job #: ____________________________

Our auditors, ______________________________________ [name and address of auditors], are engaged in an audit of our financial statements. We would appreciate your confirming the accuracy of the following information as of ___________ [balance-sheet date] concerning the above referenced contract:

1. Original contract price $____________
2. Total approved change orders $____________
   (# _____ to _____)
3. Total of progress billings $____________
4. Total payments $____________
5. Total unpaid balance $____________ including retentions of $____________
6. Details of any claims, back charges, or disputes concerning this contract (attach a separate sheet if necessary)
7. Estimated completion date _________________
8. Estimated percentage of completion ______________________

We have enclosed a self-addressed envelope for your convenience in replying directly to our auditors. Your prompt response will be greatly appreciated.

Very truly yours,

____

[Client's Authorized Signature]

CONSTRUCTION INDUSTRY CONTRACT RECEIVABLE CONFIRMATION REQUEST TO OWNER, GENERAL CONTRACTOR, OR OTHER BUYER
(continued)

The above information at ____________ [balance-sheet date] is:

( ) Correct

( ) Incorrect (please submit details of any differences below)

By: ____ Date: ______________________
[Name and Title]

Differences noted are detailed as follows: ____

____

____

____

7A.610 NOTES RECEIVABLE CONFIRMATION REQUEST

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. Please confirm the amount of your indebtedness due to us as of ____________ [balance-sheet date], which our records show as follows:

Type of indebtedness	____________________
Date of indebtedness	____________________
Balance	____________________
Date due	____________________
Interest rate	____________________
Interest paid to	____________________
Periodic payments required	____________________
Description of collateral	____________________

Please compare this information with your records and inform our auditors in the space below if it is, or is not, in agreement with your records.

After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____
[Client's Authorized Signature]

NOTES RECEIVABLE CONFIRMATION REQUEST
(continued)

The above agrees (does not agree) with our records as of ____________ [balance-sheet date]. The reason it does not agree is:

____

____

____

____

Signed: ______________________________________ Date: ____________________
[Name and Title]

7A.611 CONSIGNED INVENTORY CONFIRMATION

[Client's Letterhead)

[Date]

____
____
____

Our auditors, __________________________________ [name and address of auditors], are currently conducting an audit of our financial statements. Please confirm directly to them the merchandise on consignment by you (us) as of ____________ [balance-sheet date].

A list of such merchandise from our records is enclosed.

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

The enclosed information agrees (does not agree) with our records as of ____________ [balance-sheet date]. The reason it does not agree is:

____

____

____

Signed: ____________________________________ Date: __________________

[Name and Title]

7A.612 SECURITIES CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ______________________________________ [name and address of auditors], are conducting an audit of our financial statements. Please confirm the following securities which our records indicate were held by you on ____________ [balance-sheet date].

[Insert list of securities held]

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

The above agrees with our records at ____________ [balance-sheet date] with the following exceptions:

____

____

____

____

Signed: ____ Date: ____________________

[Name and Title]

7A.613 BROKER ACCOUNT CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. Please send a statement of our account with you as of _____________ [balance-sheet date], indicating the following:

1. Securities held or sold short by you for our account.
2. Securities out for transfer to our name.
3. Any amounts payable to or receivable from us.

Please mail your reply directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

7A.614 SAFE DEPOSIT BOX ACCESS CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ________________________________ [name and address of auditors], are conducting an audit of our financial statements. Please confirm that there has been no access to our safe deposit box number ________ between ________ and ________ o'clock.

Please indicate in the space below if the above is in agreement with your records. If it is not, please furnish the auditors any details concerning access to our safe deposit box during the period indicated.

After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____
[Client's Authorized Signature]

According to our records, there has been no access to the above described safe deposit box during the period specified, except as follows:

____
____
____

Signed: ______________________________ Date: ______________
[Name and Title]

7A.615 DEPOSIT RECEIVABLE CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. Please confirm our balance on deposit with you for ______ ____ __ [describe purpose of deposit or specify account number] of $______________ as of ______________ [balance-sheet date].

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____
[Client's Authorized Signature]

The above information agrees with our records at ______________ [balance-sheet date] with the following exceptions:

____
____
____
____

Signed: ____ Date: ________________________
[Name and Title]

7A.616 NOTES PAYABLE OR LONG-TERM DEBT CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ______________________________ [name and address of auditors], are conducting an audit of our financial statements. Please confirm to them the details of ______________________________________ [describe type of indebtedness] due you at __________ [balance-sheet date] as described below:

Date of indebtedness	____________________
Unpaid principal balance	____________________
Date due	____________________
Interest rate	____________________
Interest paid to	____________________
Terms of periodic payments required	____________________
Description of collateral	____________________
Nature of defaults, if any	____________________

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed business reply envelope.

Very truly yours,

____
[Client's Authorized Signature]

The above information agrees with our records at __________ [balance-sheet date] with the following exceptions:

____
____

Signed: ______________________________ Date: ______________
[Name and Title]

7A.617 ACCOUNTS PAYABLE CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ______________________________________ [name and address of auditors], are conducting an audit of our financial statements. Please furnish to them, in the space below, the amount of our liability to you, if any, and a statement of our account as of ____________ [balance-sheet date].

After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

____ [client's name] owed us $__________ as of _________________ [balance-sheet date].

Signed: ____ Date: ____________________

[Name and Title]

7A.618 CONSTRUCTION INDUSTRY CONFIRMATION REQUEST TO SUBCONTRACTOR

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are engaged in an audit of our financial statements. For verification purposes only, please submit directly to them the following information with respect to each (or specific) contract(s) in force at _____________ [balance-sheet date].

1. Project description ____
2. Original contract price ____
3. Total approved change orders _____________________________________
4. Total billings ____
5. Total payments ____
6. Total unpaid balance, including retentions ____________________________
7. Total retentions included in total balance due __________________________
8. Total amount and details of pending extras and claims in process or preparation, if any (attach a separate sheet if necessary) ____________________________________
   ____
9. Estimated completion date ____
10. Estimated percentage of completion based on your records __________________

We have enclosed a self-addressed envelope for your convenience in replying directly to our auditors.

CONSTRUCTION INDUSTRY CONFIRMATION REQUEST TO SUBCONTRACTOR
(continued)

Your prompt response will be greatly appreciated.

Very truly yours,

____

[Client's Authorized Signature]

7A.619 CUSTOMER DEPOSIT PAYABLE CONFIRMATION

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. In that connection, please confirm the amount of your deposit with us for ____ [describe purpose of deposit or specify account number] of $_________ as of ____________ [balance-sheet date].

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

The above agrees with our records as of ____________ [balance-sheet date] with the following exceptions:

____
____
____
____

Signed: ____ Date: ______________________

[Name and Title]

7A.620 RELATED-PARTY CONFIRMATION, QUESTIONNAIRE, AND DEFINITIONS

[Client's Letterhead]

[Date]

____
____
____

In connection with an audit of our financial statements, please furnish answers to the attached Questionnaire, sign your name, and return the Questionnaire in the enclosed envelope directly to our auditors, ____ [name and address of auditors].

The Questionnaire is designed to provide the auditors with information about the interest of officers, directors, and other related parties in transactions with our company.

Please answer all questions. If the answer to any question is "yes," please explain. Certain terms used in the questions are defined at the end of the Questionnaire.

Very truly yours,

____

[Client's Authorized Signature]

RELATED-PARTY CONFIRMATION, QUESTIONNAIRE, AND DEFINITIONS
(continued)

____
[client name or letterhead]

RELATED-PARTY QUESTIONNAIRE

1. Have you or any related party of yours had any material interest, direct or indirect, in any sales, purchases, transfers, leasing arrangements or guarantees or other transactions since __________ ______________________ [beginning of fiscal year] to which the Company (or specify any pension, retirement, savings, or similar plan provided by the client) was, is, or may be a party?

2. Do you or any related party of yours have any material interest, direct or indirect, in any pending or incomplete sales, purchases, transfers, leasing arrangements, guarantees or other transactions to which the Company (or specify any pension, retirement, savings, or similar plan provided by the client) was, is, or may be a party?

3. Have you or any related party of yours been indebted to the Company (or specify any pension, retirement, savings, or similar plan provided by the client) at any time since __________ ______________________ [beginning of fiscal year]? Please exclude purchases on usual trade terms and for ordinary travel and expense advances.

The answers to the foregoing questions are correctly stated to the best of my knowledge and belief.

______________________ ______________________________
[Date] [Signature and Title]

See Definitions at end of Questionnaire.

RELATED-PARTY CONFIRMATION, QUESTIONNAIRE, AND DEFINITIONS
(continued)

DEFINITIONS

COMPANY: Parent company and any subsidiary.

RELATED PARTY: Any (1) corporation or organization (other than the Company) of which you are an officer, director, or partner or are, directly or indirectly, the beneficial owner of 10% or more of any class of equity securities; (2) any trust or other estate in which you have a substantial beneficial ownership or for which you serve as trustee or in a similar fiduciary capacity; and (3) any close relative of yours or your spouse's, or any other person you may significantly influence (control) or be significantly influenced by.

CONTROL: Possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a party, whether through ownership, by contract, or otherwise.

PERSON: An individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or an unincorporated organization.

BENEFICIAL OWNER: A person who enjoys, or has the right to secure, benefits substantially equivalent to those of the ownership of securities, even though the securities are not registered in the person's name. Examples of beneficial ownership include securities held for the person's benefit in the name of others, such as nominees, custodians, brokers, trustees, executors and other fiduciaries; a partnership of which the person is a partner; and a corporation for which the person owns substantially all of the stock. Shares (1) held (individually or in a fiduciary capacity) by the person's spouse, the person's or his or her spouse's minor children, or a relative of the person or his or her spouse who shares the same home with the person; or (2) as to which the person can vest or revest title in himself at once or at some future time are also considered as being beneficially owned.

7A.621

LAWYER'S LETTER
CLIENT HAS PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS*

[Client's Letterhead]

[Date]

____
____
____

In connection with an audit of our financial statements as of ___________ [balance-sheet date], we have prepared, and furnished to our auditors, ______________________________ [name and address of auditors], a description and evaluation of certain contingencies, including those set forth below involving matters with respect to which you have been engaged and to which you have devoted substantive attention on behalf of the Company in the form of legal consultation or representation. These contingencies are regarded by management of the Company as material for this purpose [management may indicate a materiality limit if an understanding has been reached with the auditor]. Your response should include matters that existed at ______________ [balance-sheet date] and during the period from that date to the date of your response.

Please furnish to our auditors such explanation, if any, that you consider necessary to supplement the foregoing information, including an explanation of those matters as to which your views may differ from those stated and an identification of the omission of any pending or threatened litigation, claims, and assessments or a statement that the list of such matters is complete.

1. Pending or Threatened Litigation, Claims, and Assessments (excluding unasserted claims and assessments):

    [Ordinarily the information would include the following: (1) the nature of the litigation, (2) the progress of the case to date, (3) how management is responding or intends to respond to the litigation (for example, to contest the case vigorously or to seek an out-of-court settlement), and (4) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss.]

2. Unasserted Claims and Assessments (considered by management to be probable of assertion, and that, if asserted, would have at least a reasonable possibility of an unfavorable outcome):

    [Ordinarily management's information would include the following: (1) the nature of the matter, (2) how management intends to respond if the claim is asserted, and (3) an evaluation of the likelihood of an unfavorable outcome and estimate, if one can be made, of the amount or range of potential loss.]

LAWYER'S LETTER
CLIENT HAS PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS*
(continued)

We understand that whenever, in the course of performing legal services for us with respect to a matter recognized to involve an unasserted possible claim or assessment that may call for financial statement disclosure, if you have formed a professional conclusion that we should disclose or consider disclosure concerning such possible claim or assessment, as a matter of professional responsibility tc us, you will so advise us and will consult with us concerning the question of such disclosure and the applicable requirements of Statement of Financial Accounting Standards No. 5. Please specifically confirm to our auditors that our understanding is correct.

3. Any amount due you for services and expenses itemized by nature of service.

> [The auditor may request the client to inquire about additional matters, for example, specified information on certain contractually assumed obligations of the Company, such as guarantees of indebtedness of others.]

Please specifically identify the nature of and reasons for any limitation on your response.

Your response should include matters that existed as of ____________ [balance-sheet date] and during the period from that date to ____________ [two weeks before expected end of field work]. Our auditors would appreciate receiving your reply by ____________ [expected end of field work].

Very truly yours,

____

[Client's Authorized Signature]

* If a client has not needed to retain legal counsel, the auditor may express an unqualified opinion on the financial statements even though he or she has not obtained a letter from legal counsel of the Company. In these circumstances, the auditor should obtain written representation from the Company that legal counsel has not been retained for matters concerning business operations that may involve current or prospective litigation (see AICPA *Technical Practice Aids*, section 8340.10).

7A.622 LAWYER'S LETTER CLIENT HAS NOT PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS

[Client's Letterhead]

[Date]

____

____

____

In connection with an audit of our financial statements as of ____________ [balance-sheet date], please furnish our auditors, ____ [name and address of auditors], with the information requested below for which you have been engaged to provide legal consultation or representation. Your response should include matters that existed as of ____________ [balance-sheet date] and occurred during the period from that date to the date of your response.

1. Pending or threatened litigation, claims, and assessments (excluding unasserted claims and assessments):

   Please furnish a list of all pending or threatened litigation, claims, and assessments your firm is handling on our behalf, including the following: (1) the nature of the matter (including the amount of monetary or other damages sought); (2) progress of the matter to date; (3) how management is responding or intends to respond to the matter; for example, to contest the case vigorously or to seek an out-of-court settlement; and (4) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss and whether covered by insurance.

2. Unasserted claims and assessments:

   We understand that as a matter of professional responsibility in the course of performing legal services for us concerning possible unasserted claims or assessments that may call for financial statement disclosure, you will advise when we should consider disclosing such possible claims or assessments in accordance with Statement of Financial Accounting Standards No. 5. Please specifically confirm to our auditors that our understanding is correct.

   We have represented to ______________________ [name of auditors] that there are no unasserted claims, unless specifically identified in this letter, that you have advised us are probable of assertion and must be disclosed in accordance with Statement of Financial Accounting Standards No. 5.

   [If unasserted claims exist, management's listed information should include the following: (1) the nature of the matter; (2) how management intends to respond if the claim is asserted; and (3) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss.]

LAWYER'S LETTER
CLIENT HAS NOT PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS
(continued)

Please furnish our auditors any explanation you consider necessary to supplement the foregoing information, including an explanation of these matters as to which your views may differ from those stated.

3. Any amount due you for services and expenses itemized by nature of service.

Please specifically identify the nature of and reasons for any limitation on your response.

Your response should include matters that existed as of ____________ [balance-sheet date] and during the period from that date to ____________ [two weeks before expected end of field work]. Our auditors would appreciate receiving your reply by ____________ [expected end of field work].

Very truly yours,

____

[Client's Authorized Signature]

7A.623 PENSION PLAN ACTUARIAL INFORMATION REQUEST

[Client's Letterhead]

[Date]

____
____
____

In connection with the audit of our financial statements for the _______________ [period] ended ____________ [balance-sheet date] by our independent auditors, ______________________________ __________ [name and address of auditors], please furnish them the information described below as it pertains to the ____ [name of pension plan], which is a defined benefit plan. For your convenience in response to these requests, you may supply pertinent sections, properly signed and dated, of your actuarial report, or pension expense report, if they are available and if they contain the requested information.

A. Please provide a brief description of the following:

1. The employee group covered

2. The benefit provisions of the plan used in the calculation of the net periodic pension cost for the period and of the accumulated benefit obligation and the projected benefit obligation at the end of the period

   Please identify any such benefit provisions that had not taken effect in the year Please also provide the date of the most recent plan amendment included in your calculation. Please identify any participants or benefits excluded from the calculations, such as benefits guaranteed under an insurance or annuity contract.

3. The plan sponsor's funding policy for the plan

4. Any significant liabilities other than for benefits, such as for legal or accounting fees

5. The method and the amortization period, if any, used for the following:

   a. Calculation of a market-related value of plan assets, if different from the fair value
   b. Amortization of any transition asset or obligation
   c. Amortization of unrecognized prior service cost
   d. Amortization of unrecognized net gain or loss

6. Any substantive commitments for benefits that exceed the benefits defined by the written plan that are included in the calculations

7. A determination of the value of any insurance or annuity contracts included in the assets

PENSION PLAN ACTUARIAL INFORMATION REQUEST
(continued)

8. The nature and effect of significant plan amendments and other significant matters affecting comparability of net periodic pension cost, funded status and other information for the current period with that for the prior period

9. The following information relating to the employee census data used in calculating the benefit obligations and pension cost:

   a. The source and nature of the data is __________________ and the date as of which the census data was collected is ____________________.
   b. The following information concerning participants:

Participants	Number of persons	Compensation (if applicable)
Currently receiving payments	________	__________
Active with vested benefits	________	__________
Terminated with deferred vested benefits	________	__________
Active without vested benefits	________	__________
Other (describe)	________	__________

Note: If information is not available for all the above categories, please indicate the categories that have been grouped and describe any group or groups of participants excluded from the above information.

   c. Information for the following individuals contained in the census:

Participants' name or number	Age or birth date	Sex	Salary	Dated hired or years of service

Practice Tip:

The auditor should select information from employer records to compare with the census data used by the actuary. In addition, the auditor may wish to have the actuary select certain census data from his or her files to compare with the employer's records.

B. Please provide the following information about the net periodic pension cost for the _____________ [period] ended ____________________________:

   1. Service cost

   2. Interest cost

PENSION PLAN ACTUARIAL INFORMATION REQUEST
(continued)

3. Actual return on assets

4. Other components

   a. Net asset gain or (loss) during the period deferred for later recognition
   b. Amortization of net loss or (gain) from earlier periods
   c. Amortization of unrecognized prior service cost
   d. Amortization of the remaining unrecognized net obligation or (asset) existing at the date of the initial application of FASB Statement No. 87 — transition obligation or (asset)
   e. Net total of components (a.+b.+c.+d.) $____________

5. Net periodic pension cost (1.+2.-3.+4.e.) $____________

6. The above measurement of the net periodic pension cost is based on the following assumptions:

   Weighted-average discount rate: ___________%
   Weighted-average rate of compensation increase: ___________%
   Weighted-average expected long-term rate of return on plan assets: ___________%

   Please describe the basis on which the above rates were selected and whether the basis is consistent with that of the prior period.

   Please briefly describe the other assumptions used in the above measurement.

7. The calculations of the items shown in B.1. to B.5. are based on the following:

   Asset information at: ____________

   Census data at: ____________

   Measurement date (must be not more than three months before the end of the last fiscal year): ____________

   Please describe any adjustments made to project the census data forward to the measurement date or to project the results calculated at an earlier date to those shown in B.1. to B.5.

PENSION PLAN ACTUARIAL INFORMATION REQUEST
(continued)

C. Please provide the following information about the benefit obligations for disclosure in the financial statements as of and for the ______________ [period] ended ______________:

	Estimated
1. Pension benefit obligation	
a. Accumulated benefit obligation	
— Vested:	$___________
— Nonvested:	___________
— Total:	___________
b. Additional benefits based on estimated future salary levels:	___________
c. Projected benefit obligation (a.+b.):	___________
2. Fair value of plan assets:	___________
3. Unfunded projected benefit obligation (1.c.-2.):	___________
4. Unrecognized prior service cost:	___________
5. Unrecognized net loss (gain):	___________
6. Unrecognized net transition liability (asset):	___________
7. Additional liability:	___________
8. Accrued (prepaid) pension cost in the company financial statements (3.-4.-5.-6.+7.):	$___________
9. The above amount of the projected benefit obligation is measured based on the following assumptions:	
Weighted-average discount rate:	___________%
Weighted-average rate of compensation increase:	___________%

Please provide a brief description of the other assumptions used in the measurement.

PENSION PLAN ACTUARIAL INFORMATION REQUEST
(continued)

10. The calculation of the items shown in C.1. to C.8. is based on the following:

    Asset information at: ____________

    Census data at: ____________

    Measurement date (must be not more than three months before the current fiscal year end): ____________

    Please describe any adjustments made to project the census data forward to the measurement date or to project the results calculated at an earlier date to those shown in C.1. to C.8.

11. Please describe any significant events noted subsequent to the current year's measurement date and as of the date of your reply to this request and the effects of those events, such as a large plant closing, which could materially affect the amounts shown in C.1. to C.8.

D. Please provide an analysis for the period showing beginning amounts, additions, reductions, and ending amounts of the —

1. Projected benefit obligation.
2. Unrecognized prior service cost.
3. Unrecognized net loss (gain).
4. Net transition obligation (asset).

E. Please provide our independent auditors with descriptions and the amounts of gains or losses from settlements, curtailments, or termination benefits during the year, such as —

1. Purchases of annuity contracts.
2. Lump-sum cash payments to plan participants.
3. Other irrevocable actions that relieved the company or the plan of primary responsibility for a pension obligation and eliminates significant risks related to the obligation and assets.
4. Any events that significantly reduced the expected years of future service of employees.
5. Any events that eliminated for a significant number of employees the accrual of defined benefits for some or all of their future service.
6. Any special or contractual termination benefits offered to employees.

PENSION PLAN ACTUARIAL INFORMATION REQUEST
(continued)

F. Was all of the information above determined in accordance with FASB Statement Nos. 87 and 88 (including the FASB's guide to implementation of statements 87 and 88 and the American Academy of Actuaries *An Actuary's Guide to Compliance with Statement of Financial Accounting Standards No.87*) to the best of your knowledge? Yes ____ No ____. If not, please describe any differences.

G. Describe the nature of your relationship, if any, with the plan or the plan sponsor that may impair or appear to impair the objectivity of your work.

Very truly yours,

____

[Client's Authorized Signature]

7A.624 TRUSTEED EMPLOYEE BENEFIT FUND CONFIRMATION REQUEST

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ____ [name and address of auditors], are conducting an audit of our financial statements. Please furnish them with the following information concerning __________________________________ [name of employee benefit trust], administered by you as trustee.

1. Contributions by the company during the period _____________ [date] to _____________ [date].

2. Contributions by employees during the period _____________ [date] to _____________ [date].

3. Payments to beneficiaries during the year ended ____________________________ [balance-sheet date].

4. All unpaid fees due you for services rendered to _____________ [balance-sheet date].

Please mail your reply directly to our auditors in the enclosed envelope.

Very truly yours,

____

[Client's Authorized Signature]

7A.625 STANDARD CONFIRMATION INQUIRY FOR LIFE INSURANCE POLICIES

LIFE INSURANCE STANDARD CONFIRMATION INQUIRY

Developed by American Institute of Certified Public Accountants
Life Office Management Association and
Million Dollar Round Table

RETURN TO

Date:

Your completion of the following report will be sincerely appreciated. IF THE ANSWER TO ANY ITEM IS "NONE," PLEASE SO STATE. Use the enclosed envelope to return the original directly to our accountant (see name to left).

Yours truly,

(Name of owner as shown on policy contract)

By
Authorized Signature

REPORT FROM INSURANCE COMPANY

Information requested as of:
(Date)

Additional forms available from
AICPA ORDER
P.O. BOX 1003
NYC NY 10108 1003

		Policy #1	Policy #2	Policy #3
Ⓐ Policy Number				
Ⓑ Insured-Name(s)				
Ⓒ Beneficiaries as Shown on Policies (If Verification Requested in Item 11)				
1 Face Amount of Basic Policy				
2 Values Shown as of (Insert Date If Other Than Date Requested)				
3 Premiums, Including Prepaid Premiums, Are Paid to (Insert Date)				
4 Policy Surrender Value (Excluding Dividends, Additions & Indebtedness Adjustments)				
5 Surrender Value of All Dividend Credits, Including Accumulations & Additions				
6 Termination Dividend Currently Available on Surrender				
7 Other Surrender Values Available to Policy Owner	a. Prepaid Premium Value			
	b. Premium Deposit Funds			
	c. Other			
8 Outstanding Policy Loans, Excluding Accrued Interest				
9 If Any Policy Loans Exist, Complete Either "a" or "b"	a. Interest Accrued on Loans			
	b1. Loan Interest Is Paid to (Enter Date)			
	b2. Interest Rate Is (Enter Rate)			
NOTE: PLEASE ANSWER ANY ITEM(s) 10-12 INDICATED BY A (✓).				
☐ 10 Is There an Assignee of Record? (Enter Yes or No)				
☐ 11 Is Beneficiary of Record as Shown in Item Ⓒ Above? (Enter Yes or No*)		*	*	*
☐ 12 Is the Name of Policy Owner (Subject to Any Assignment) as Shown on Top of Form: ☐ Yes ☐ No If No, Enter Name of Policy Owner of Record:				

* If Answer to Item 11 is "No," Please Give Name of Beneficiary or Date of Last Beneficiary Change:

Yours truly, (Insurance Company)

ORIGINAL
To be mailed to accountant

Date

Authorized Signature - Title

7A.626 INSURANCE IN FORCE CONFIRMATION REQUEST

[Client's Letterhead]

[Date]

____
____
____

Our auditors, ________________________________ [name and address of auditors], are conducting an audit of our financial statements. Please confirm to them the details of our insurance coverage in force at __________ [balance-sheet date] as described below:

Policy number	__________	__________
Insurance company	__________	__________
Type of coverage	__________	__________
Amount of coverage	__________	__________
Co-insurance, if any	__________	__________
Term of policy	__________	__________
Gross premium	__________	__________
Amount of unpaid premiums	__________	__________
Loss payees, if other than us	__________	__________
Claims pending at __________ [balance-sheet date]	__________	__________

Please compare this information with your records and inform our auditors, in the space below, if it is, or is not, in agreement with your records. After signing and dating your reply, please mail it directly to our auditors in the enclosed envelope.

Very truly yours,

____
[Client's Authorized Signature]

The above information agrees with our records at __________ [balance-sheet date] with the following exceptions:

____
____
____

Signed: ______________________________ Date: ______________
[Name and Title]

7A.627 PROJECT MANAGER'S QUESTIONNAIRE

AS OF: ____________________

Prepared by: ____________________

Date Prepared: ____________________

Job Name: ____________________

Job Superintendent: ____________________

1. What is the current status of the job? (Overall estimated percent complete at the above date.)

2. What is the projected completion date?

3. Are there any major cost overruns on the job at the above date? If yes, please discuss noting any recoveries that may exist against each overrun.

4. What is the projected profit at the above date?

5. Did you thoroughly review the costs-to-complete analysis dated and did you approve the analysis?

6. Are there any major problems with a subcontractor at the above date? If yes, is the subcontractor fully bonded? If no, please discuss the potential financial risks and any recoveries that may exist.

7. Discuss the status of any escalation claims at the above date.

8. Discuss the status of any penalty claims at the above date.

9. Are there any legal problems related to this job at the above date? If yes, please discuss.

10. Did any events occur subsequent to the above date until the date of preparation that might have a material affect on the outcome of this job? If yes, please discuss in full.

11. Do you anticipate a loss on this job?

7A.628 ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION

[CPA Firm Letterhead]

[Date]

____

____

____

In connection with the audit of our financial statements for the period ending ____________ by our independent auditors, ____________________________________ [name and address of auditors], please furnish them a copy of the most recent actuarial valuation report for _________________ [name of plan]. If a complete actuarial valuation was not prepared as of _________ [date], please provide any reports or letters that summarize end-of-period amounts. If the information requested below is included in the valuation report, you may refer to the location in your report rather than repeating such information.

A. Please provide a brief description of the following:

1. The participant group(s) (for example, employee, retiree and dependent group[s]) covered, and the types of benefits provided.

2. The provisions of the substantive plan at the beginning of the period used in the calculation of the net periodic postretirement benefit cost for the period.

3. Any changes between the provisions of the substantive plan at the beginning of the period used in the calculation of net periodic postretirement benefit costs and the substantive plan used in the calculation of the accumulated postretirement benefit obligation (APBO) at the disclosure date. Additionally, please specify the following:

   a. The disclosure date (which cannot be more than three months prior to the end of the period).

   b. How these changes were included in the net periodic postretirement benefit costs for the period.

4. The date and description of plan amendments adopted during the period and whether the amendment(s) were included in items 2. and 3. above.

5. Any participants, benefits or plan terms excluded from the calculations and the reasons for their exclusion.

6. The funding policy for the plan if other than pay-as-you-go.

7. Any significant liabilities other than for benefits.

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

8. The method and the amortization period, if any, using for amortizing:

   a. Any transition asset or obligation.

   b. Unrecognized prior service cost.

   c. Unrecognized net gain or loss.

9. If the plan is funded, provide:

   a. The amounts and types of securities used to value plan assets.

   b. Calculation of fair value of plan assets.

   c. The date as of which fair value was calculated.

   d. The method of determining the value of any contracts with insurance companies and participation provisions included in the plan assets.

10. The following information relating to the participants' demographic and compensation data used in calculating the APBO and net periodic postretirement benefit cost:

    a. The source of the demographic data and the date as of which the data were collected.

    b. The following information concerning the participants and their beneficiaries in the following (or a comparable) format. Please indicate any groups of participants excluded from the information.

Participants	Number of persons	Compensation (if applicable)
Retirees and beneficiaries eligible for benefits	________	________
Dependents of retirees eligible for benefits	________	________
Active employees fully eligible for benefits	________	________
Terminated employees fully eligible for benefits	________	________
Active employees not fully eligible for benefits	________	________
Other (identify)	________	________

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

c. Information for the following participants:

Participants' name or number	Age or birth date	Sex	Salary	Date hired or year of initial eligibility
____	____	____	____	____

11. A summary of the per-capita claims costs used in the valuation and the basis for the development, including:

    a. If employer-specific claims data were used in connection with the development of per-capita claims costs by age, a description of the data, its source and the period from which it was taken.

    b. If an external data source was used in connection with the development of per-capita claims costs by age, describe the nature of the external data source and how it was used.

    c. The extent to which external data sources were used to adjust the historical claims data.

B. Please provide the following components of the net periodic postretirement benefit cost for the period (see A.2. above):

1. Service cost		$____
2. Interest cost		____
3. Actual return on plan assets		____
4. Other components, net		
a. Net asset gain (loss) during the period deferred for later recognition	$____	
b. Amortization of net loss (gain) from earlier periods	____	
c. Amortization of unrecognized prior service cost	____	
d. Amortization of the transition obligation	____	
e. Net total of other components (a. + b. + c. + d.)	____	
5. Net periodic postretirement benefit cost (1. + 2. - 3. + 4.e.)		$____

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

C. Please provide the following information related to the APBO as of the disclosure date (see A.3. above):

	Beginning of period (transition date)*	End of period
1. Accumulated postretirement benefit obligation (APBO)		
a. Retirees and beneficiaries eligible for benefits	$______	$______
b. Dependents of retirees eligible for benefits	______	______
c. Active employees fully eligible for benefits	______	______
d. Terminated employees fully eligible for benefits	______	______
e. Active employees not fully eligible for benefits	______	______
f. Other (identify)	______	______
g. Total (sum of 1.a.-1.f.)	______	______
2. Fair value of plan assets	______	______
3. Funded status (1.g.-2.)	______	______
4. Unrecognized prior service cost	______	______
5. Unrecognized net loss (gain)	______	______
6. Unrecognized transition obligation (asset)	______	______
7. Accrued (prepaid) postretirement benefit cost (3. less items 4.–6.)	$______	$______

D. Please provide the following information regarding the assumptions used to compute the net periodic postretirement benefit cost and APBO. If a published standard table was used, provide its name.

* This column should be included only in the initial year application of SFAS No. 106.

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

ECONOMIC ASSUMPTIONS

	Net periodic cost	APBO
1. General inflation (e.g., CPI)	_______%	_______%
2. Weighted-average discount rate	_______%	_______%
3. Weighted-average rate of compensation increase	_______%	_______%
4. Weighted-average expected long-term rate of return on plan assets	_______%	_______%
5. Estimated income tax rate included in rate of return	_______%	_______%
6. Method used to determine market-related value of assets	_______%	_______%

EMPLOYEE DEMOGRAPHIC DATA

7. Employee turnover rates by age	Describe or attach table	
8. Rates of retirement by age	Describe or attach table	
9. Rates of disability by age	Describe or attach table	
10. Rates of mortality by age	Describe or attach table	
11. Percentage of employees with dependents at retirement	_______%	_______%
12. Spouse age difference	_______%	_______%

If participants in this plan are covered by defined benefit pension plan for which expense is determined in accordance with SFAS No. 87, *Employers' Accounting for Pensions*, please state whether the above assumptions are consistent with those used in calculations in determining those pension amounts. If not, please explain the difference and the reason for the difference.

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

SPECIFIC ASSUMPTIONS FOR RETIREE HEALTH CARE BENEFITS

	Net periodic cost	APBO
13. Weighted-average administrative expense (e.g., claims settlement, legal, accounting, plan administration, etc.) as a percentage of claims or other basis for assumption	_______%	_______%
14. Percentage expecting to elect coverage under the plan:		
a. Future retirees	_______%	_______%
b. Their dependents	_______%	_______%
15. Health care cost trend rates (please provide rates for each year to the ultimate rate)	Describe or attach table	

a. Please state whether these rates are applicable to gross eligible charges or to net incurred claims cost. If applied to net incurred claims, please state what adjustments were made and what rates are to be shown for disclosure.

b. The effect of one-percentage-point increase in assumed health care cost trend rate on:

i. The aggregate of service and interest cost components of net periodic postretirement benefit costs.

ii. APBO.

16. Please state whether the above assumptions are consistent with the prior period, and, if not, explain the reason for the changes.

17. Please describe any other significant assumptions used in the above measurement and the basis on which they were determined.

E. Please provide a description and the amounts of gains or losses from settlements, curtailments or termination benefits during the year, such as:

1. Purchase of insurance contracts where the risk of benefit payments is fully assumed by the insurance company.

2. Lump-sum cash payments to plan participants.

ILLUSTRATIVE LETTER TO ACTUARY REQUESTING EMPLOYER'S BENEFIT COST INFORMATION
(Continued)

3. Other irrevocable actions that relieved the employer, plan sponsor or the plan of primary responsibility for a postretirement benefit obligation and eliminated significant risks related to the obligation and assets.

4. Any events that significantly reduced the expected years of future service of employees.

5. Any events that eliminated for a significant number of employees the accrual of defined benefits for some or all of their future service.

6. Any special or contractual termination benefits offered to employees.

F. Please describe any significant events (for example, plant closings) noted subsequent to the current year's measurement date, and the effects of those events, that could materially affect the amounts shown in B. or C.

G. If you have been notified of a decision by the plan sponsor to fully or partially terminate the plan, please describe the effect on the APBO and the net periodic postretirement benefit cost.

H. Was all of the information above determined in accordance with SFAS No. 106 to the best of your knowledge? If not, please describe any differences.

I. Describe the nature of your relationship, if any, with the plan or the plan sponsor that may impair or appear to impair the objectivity of your work.

J. Indicate your professional qualifications for performing actuarial valuations under SFAS No. 106.

Very truly yours,

____

[Client's Authorized Signature]

7A.700 USING THE CONTRACTORS' WORKING PAPERS PACKAGE

7A.701 This illustrative set of working papers has been developed to assist in the organization, planning, and completion of construction contractor audit engagements. The illustrative working papers are not a substitute for common sense and professional judgment. They are presented as guides for your modification and use in construction contractor audit engagements.

7A.702 These illustrative working papers are not all-inclusive. Other commonly prepared working papers include —

- Detailed trial balance.
- Minutes of directors' meetings.
- Listings of accounts payable.
- Schedules supporting various other balance-sheet and earnings-statement accounts.

7A.703 Copies of client-prepared schedules and documents should be used wherever feasible. If possible, clients should be instructed in advance to use these illustrative working papers when preparing schedules for our use. Any client schedules and documents not conforming in size should be taped on our standard size working papers to facilitate their filing and future use.

7A.800 CONTRACTORS' WORKING PAPERS PACKAGE

EXPLANATION OF STANDARD TICKMARKS

PREPARED BY	
DATE	

MARK	EXPLANATION
F	Footed
CF	Crossfooted
G/L	Traced to general ledger
C	Confirmed
✓	Examined supporting invoice
	Calculation verified
T/B	Traced to trial balance

CORRESPONDENCE CONTROL

				PREPARED BY	
				DATE	
	Addressee	Date First Request	Date Second Request	Date Subsequent Requests	Date Confirmation Completed
Description					
Bank confirmations					
Cutoff statement					
Account balances					
Contingent liabilities					
Credit lines					
Compensating balances					
Securities custodian confirmations					
Notes receivable confirmations					
Accounts Receivable confirmations					
Consigned inventory confirmations					
Warehoused inventory					
Deposit receivable confirmations					
Safe deposit box access confirmations					
Insurance in force confirmations					
Notes payable confirmations					
Accounts payable confirmations					
Customer deposit payable confirmations					
Employee benefit plan confirmations					
Related party confirmations					
Lawyer letters					
Client representation letter					
Other					

WORKING TRIAL BALANCE - ASSETS

PREPARED BY	
DATE	

Description	Working Paper Reference	Final Prior Year	Per Ledger This Year	Adjustments Dr.	Adjustments Cr.	Adjusted This Year	Reclassifications Dr.	Reclassifications Cr.	Final This Year
Cash									
Marketable Securities									
Notes Receivable, less allowance for doubtful accounts									
Contracts receivable									
Less allowance for doubtful accounts									
Net									
Accounts receivable - related parties - other									
Refundable income taxes									
Excess costs (and estimated earnings, for percentage -									
of - completion method) over billings on uncompleted									
contracts									
Inventories:									
Merchandise									
Finished goods									
Work in process									
Raw materials									
Total									
Prepaid Expenses									
Investments									
Fixed assets:									
Land									
Buildings									
Leasehold improvements									
Machinery and equipment									
Furniture and fixtures									
Total									

WORKING TRIAL BALANCE - ASSETS

								PREPARED BY	
								DATE	
Description	Working Paper Reference	Final Prior Year	Per Ledger This Year	Adjustments Dr.	Adjustments Cr.	Adjusted This Year	Reclassifications Dr.	Reclassifications Cr.	Final This Year
Less accumulated depreciation and amortization									
Net									
Capitalized leased assets									
Fixed assets under construction									
Intangible assets									
Other assets									

WORKING TRIAL BALANCE - LIABILITIES AND STOCKHOLDERS EQUITY

PREPARED BY

DATE

Description	Working Paper Reference	Final Prior Year	Per Ledger This Year	Adjustments Dr.	Adjustments Cr.	Adjusted This Year	Reclassifications Dr.	Reclassifications Cr.	Final This Year
Liabilities:									
Notes payable									
Accounts payable									
Subcontractors payable									
Accrued expenses									
Federal and state income taxes payable:									
Current									
Deferred									
Excess of billings over costs (and estimated earnings for percentage-of-completion method) on uncompleted contracts									
Current portion of long-term debt									
Other current liabilities									
Long-term portion of long-term debt									
Deferred Federal and state income taxes									
Capitalized equipment lease obligations									
Stockholders' equity:									
Capital Stock									
Additional paid-in capital									
Retained earnings									

WORKING TRIAL BALANCE - REVENUES, COSTS AND EXPENSES

PREPARED BY	
DATE	

Description	Working Paper Reference	Final Prior Year	Per Ledger This Year	Adjustments Dr.	Adjustments Cr.	Adjusted This Year	Reclassifications Dr.	Reclassifications Cr.	Final This Year
Revenues:									
Construction contract									
Other									
Costs and expenses:									
Costs of construction contracts									
Selling expenses									
General and administrative expenses									
Interest expense									
Bad debt expense									
Other									
Earnings before taxes									
Provision for taxes:									
State									
Current									
Deferred									
Federal									
Current									
Deferred									
Net earnings (loss)									

LEAD SCHEDULE

PREPARED BY	
DATE	

Working Paper Reference	Description	Final Prior Year	Per Ledger This Year	Adjustments Dr. (CR.)	Adjusted This Year	Reclassifications Dr. (CR.)	Final This Year

CASH ON HAND

				PREPARED BY	
				DATE	
WORKING PAPER REFERENCE	CASHIER	LOCATION OF FUND	BALANCE PER ACCOUNT	OVER (SHORT)	BALANCE PER BOOKS

BANK RECONCILIATION

						PREPARED BY	
						DATE	
Balance per bank							
Deposits in transit							
Deduct:							
Outstanding shecks							
Ohter reconcsiling items (describe)							
Balance per books before adjustment							
Adjustments (identify and desribe):							
Bank service charges							
Bank charges for returned checks							

BANK TRANSFERS

PREPARED BY	
DATE	

Date Per books	Number	Payee	Check Amount	Bank on Which drawn	Date Endorsed By Bank	Date Posted By Bank	Date Per books	Deposit Bank in Which deposited	Date Posted By Bank	Remarks

CONTRACTS AND OTHER TRADE RECEIVABLES AGED TRIAL BALANCE

PREPARED BY	
DATE	

	Confirmation	Number	Balance Per	Current		Past	Due	Alternative Procedures	Required Allowance	Amount
Account Name	Positive	Negative	Ledger	1-30 Days	31-60 Days	61-90 Days	Over 90 Days	Performed	Explanation	

ALLOWANCE FOR DOUBTFUL ACCOUNTS

	PREPARED BY		
	DATE		
Balance at beginning of period			
Add:			
	Provision for the period		
	Recovery of written off accounts		
	Subtotal		
Deduct:			
	Accounts written off		
Balance at end of period - unadjusted			
Adjustments			
Balance at end of period - adjusted			

CONTRACTS AND OTHER TRADE RECEIVABLES CONFIRMATION STATISTICS

			PREPARED BY	
			DATE	
	Number		Dollars	
	Amount	%	Amount	%
Circularization:				
Positive requests				
Negative requests				
Total circularized				
No requests sent				
Total accounts receivable at				
date of confirmation		100%		100%
Results (Replies received through ____)				
No differences reported:				
Positive replies:				
Negative requests				
Differences reported				
and resolved:				
Positive replies				
Negative replies				
No positive replies				
Total confirmed		100%		100%

NOTES RECEIVABLE

PREPARED BY	
DATE	

						NOTES						INTEREST			
	Date		Face Amount	Collateral		Balance Beginning	Additions	Balance at end of period			Paid	Accrued Begin.			Accrued end
Maker	Made	Due	of Note	Description	Valuation	of period	(Payments)	Current	Long-term	Rate	To	of period	Earned	Received	of period

RECONCILIATION OF BOOK AND PHYSICAL INVENTORIES

			PREPARED BY	
			DATE	
	Raw Materials	Work in Process	Finished Goods	Other/ supplies
Book inventory, unadjusted at date of physical				
Adjustments to book inventory (describe):				
Book inventory adjusted at date of physical				
Physical inventory, unadjusted				
Adjustments to physical inventory (describe):				
Physical inventory, adjusted				
Reconciliation of book and physical inventories:				
Book inventory, adjusted, at date of physical				
Adjustment to physical				
Physical inventory				

PHYSICAL INVENTORY CUTOFF DATA

			PREPARED BY	
			DATE	
	Last sales invoice number used			
	Last "return from customer" number used			
	Last shipping report number used			
	Last bill of lading number used			
	Last receiving report number used			
	Last "return to vendor" number used			
	Other cutoff information:			

RAW MATERIALS PRICING TEST

PREPARED BY	
DATE	

Tag				Per Clients Inventory		Per Vendors Invoice						
						Invoice						
No.	Part No.	Description	Quantity	Unit cost	Extension	Date	No.	Quantity	Unit Cost	Extension	Difference	Explanation

PREPAID INSURANCE

PREPARED BY
DATE

		Coverage			Book Value						Prepaid	
Policy					of Assets	Terms of Coverage		Original	Beginning			Ending
Number	Company	Type	Coinsurance	Amount	Insured	From	To	Premium	Balance	Additions	Expense	Balance

PROPERTY, PLANT AND EQUIPMENT

										PREPARED BY	
										DATE	
			Cost					Accumulated depreciation			
Account Number	Description	Bal. Begin of Period	Additions	Disposals	Bal. End of Period	Account Number	Rate and Method	Bal. Begin of Period	Provisions	Disposals	Bal. End of Period

ADDITIONS

PREPARED BY	
DATE	

Date	Vendor	Description	Estimated Life	New or Used	Cost

DISPOSALS

PREPARED BY	
DATE	

Date Sold	Date Acquired	Vendee	Description	Depreciation Rate and method	Cost	Accumulated Depreciation	Proceeds	Gain (Loss)

INVESTMENTS IN SECURITIES

PREPARED BY

DATE

	Beginning of Period			Additions			Disposal						End of period			Market Value	
	No.	Face		No.	Face		No.	Face			Gain	Amort. (Premium)	No.	Face			
Description	Shares	Amount	Cost	Shares	Amount	Cost	Shares	Amount	Cost	Proceeds	(Loss)	Discount	Shares	Amount	Cost	Per share	Total

NOTES PAYABLE AND LONG-TERM DEBT

PREPARED BY	
DATE	

							NOTES				INTEREST		
	Date		Face Amount	Collateral	Balance Beginning			Balance	Paid	Accrued Begin.			Accrued end
Payee	Made	Due	of Note	Description	of period	Additions	Payments	End of period	to	of period	Expense	Paid	of period

SUMMARY OF CARRYOVERS

								PREPARED BY	
								DATE	
		FINANCIAL STATEMENT				TAX RETURN			
		Amounts	Years	Amounts		Amounts	Years	Amounts	Year of
	Amount	Applied	Applied to	Remaining	Amount	Applied	Applied to	Remaining	Expiration
Net operating Losses									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
Contributions									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									
FYE 19____									

STOCKHOLDERS EQUITY ANALYSIS

											PREPARED BY	
											DATE	
			Preferred - Account No.				Common Account No.				Add'l Paid	Retained
			Number				Number		Treasury Stock		Capital	Earnings
Date	Reference	Description	of shares	Amount			of shares	Amount	No shares	Amount	Acct. No.	Acct. No.
		Balance, beginning of year										
		Balance, at end of year										

TESTS OF CONTROLS - CASH DISBURSEMENTS AND PURCHASES

PREPARED BY	
DATE	

Check			Invoice		Invoice	P.O.	Receiving Report	Account	Clerical accuracy of	Authorized Approval of	Correct Accounting	Voucher Package	Agreement of	Agreement of	Inv. P.O. Receiver	Correct Cash Discount
Date	No.	Vendor	Date	No.	Amount	No.	No.	charged	Inv. & P.O.	Inv. & P.O.	Distribution	Canceled	Quantities	Prices	All Present	Taken

TESTS OF CONTROLS - PAYROLL

PREPARED BY	
DATE	

Check		Employee		Time Cards Agree with P/R	O/T Hours Approved	Rate Agrees with Pers. files	Gross Pay Correct	Exemptions agree with W-4	Inc. Tax Calculations Correct	FICA Calculations Correct	Auth. for Vol. W/H	Vol. W/H Correct	Net Pay Calculations Correct	End. Agrees with W-4
Date	No.	Name	No.											

STATEMENT OF CASH FLOWS WORKING PAPER

PREPARED BY
DATE

	Balances		Net	Reclass.	Investing Activities		Financing Activities		Noncash	
	Ending	Beginning	Change	Adj.	Cash Out	Cash In	Cash Out	Cash In	Activities	Description
Assets:										
Cash and equivalents										
Marketable securities										
Accounts receivable										
Notes receivable										
Allowance for doubtful accounts										
Excess of costs(and estimated earnings, for percentage-of completion method) over billings on uncompleted contracts										
Inventory										
Prepaid expenses										
Investments:										
Cost method										
Equity method										
Property, plant and equipment:										
Owned										
Leased under capital lease										
Accumulated depreciation and amortization										
Intangible assets										
Other assets										
Total Assets										

STATEMENT OF CASH FLOWS WORKING PAPER (CONTINUED)

PREPARED BY

DATE

	Balances		Net	Reclass.	Investing Activities		Financing Activities		Noncash	
	Ending	Beginning	Change	Adj.	Cash Out	Cash In	Cash Out	Cash In	Activities	Description
Liabilities:										
Accounts payable and accrued expenses:										
Interest payable (A)										
Income taxes payable (B)										
Short-term debt										
Capitalized lease obligations										
Long-term debt										
Deferred income taxes										
Other liabilities										
Total Liabilities										
Stockholders' Equity:										
Capital stock										
Retained earnings										
Net earnings										
Dividends paid										
Total Stockholders' Equity										
Total Liabilities and Stockholders' Equity										
Net cash provided										
(A), (B) - Disclosure information										

STATEMENT OF CASH FLOWS WORKING PAPER (CONTINUED)

							PREPARED BY	
							DATE	
	Reclass.	Net	Investing Activities		Financing Activities		Noncash	
	Adj.	Change	Cash Out	Cash In	Cash Out	Cash In	Activities	Description
Reconciliation of Net Earnings to Net Cash Flow from operations:								
Net Earnings (page 2)								
Adjustments:								
Depreciation and amortization								
Sale of facility:								
Cost								
Accumulated depreciation								
Cash received								
Provision for doubtful accounts								
Equity in undistributed earnings of affiliate								
Distribution of earnings by affiliate								
Deferred income taxes								
Changes in assets and liabilites:								
Accounts receivable								
Inventory								
Prepaid expenses								
Accounts payable and accrued expenses								
Interest payable								
Income taxes payable								
Other liabilites								
Net cash (provided) applied								

STATEMENT OF CASH FLOWS WORKING PAPER (CONTINUED)

	PREPARED BY	
	DATE	
Disclosure information:		
Interest Paid:		
(A) Interest expenses (on accrual basis)	$	
Add beginning accrual		
Subtract ending accrual	( )	
Other adjustments (describe)		
Interest paid		
(B) Income taxes paid:		
Total income tax expense (from income statement)	$	
Deduct (add) deferred income tax expense (credit)		
Current income tax expense		
Add beginning accrual (from above)		
Subtract ending accrual (from above)	( )	
Other adjustments (describe)		
Income taxes paid		

PENSION ACCOUNTING WORKPAPER

								PREPARED BY	
								DATE	
		JOURNAL ENTRY			MEMO CODES				
		Pension expense	Cash	Prepaid (accrued) expense	Projected benefit obligation	Plan assets	Deferred transition loss	Prior service cost	Deferred unexpected cost
	12/31____								
Service Cost									
Interest									
Actual Return									
Unexpected loss									
Transition									
PSC allocation									
Contribution									
Benefits									
PBO change									
Journal entry									
	12/31____								

SCHEDULE OF CONTRACTS IN PROGRESS - PERCENTAGE-OF-COMPLETION METHOD

PREPARED BY

DATE

		1	2	3	4	5	6	7	8	9	10	11	12
		Total	Contract Costs			(1-4)	(5/1)	(2/4)	(5x7)	(2+8)		(9-10)	(10-9)
		Contract	Actual	Estimated		Estimated	Estimated	Percent	Profit	Contract	Billings	Cost & Prof/	Billings/
CONTRACT NAME	Type (1)	Amount(2)	to date	to complete	Total	Profit	Profit %	Completed	Recognized	Revenues	to Date	Billings	Costs & Prof

(1) CONTRACT TYPE
A- Fixed - Price
B-Cost - Plus - Fee
C __________

(2) INCLUDES APPROVED CHANGE ORDERS

ANALYSIS OF CONTRACT COSTS - PERCENTAGE-OF-COMPLETION METHOD

										PREPARED BY	
										DATE	
		Contract costs incurred to date					Estimated costs to complete contract				
CONTRACT NAME	*Type	Material	Labor	Subcontract	Other	Total	Material	Labor	Subcontract	Other	Total
*CONTRACT TYPE:											
A- Fixed - Price											
B-Cost - Plus - Fee											
C______________											

SUBSEQUENT REVIEW OF ESTIMATED COSTS TO COMPLETE - COMPLETED CONTRACT METHOD

										PREPARED BY	
										DATE	
	Estimated costs to complete contract as of					Subsequent costs incurred through					
CONTRACT NAME	Material	Labor	Subcontract	Other	Total	Material	Labor	Subcontract	Other	Total	Comments

SCHEDULE OF COMPLETED CONTRACTS - PERCENTAGE-OF-COMPLETION METHOD

									PREPARED BY	
									DATE	
		Total Contract			Recognized in Prior Period			Recognized During Current Period		
			Profit				Profit			Profit
CONTRACT NAME	Revenues	Costs	(Loss)	%	Revenues	Costs	(Loss)	Revenues	Costs	(Loss)

SCHEDULE OF CONTRACTS IN PROGRESS - COMPLETED CONTRACT METHOD

										PREPARED BY	
										DATE	
	1	2	3	4	5	6	7	8	9	10	11
			Estimated	(2-3)		Costs incurred to date				(8-9)	(9-8)
		Contract	Contract	Estimated					Billings	Costs/	Billings/
CONTRACT NAME	Type (1)	Amount	Costs	Profit (loss)	Materials	Labor	Other	Total	To Date	Billings	Costs
(1)CONTRACT TYPE:											
A- Fixed - Price											
B-Cost - Plus - Fee											
C____________											

SCHEDULE OF COMPLETED CONTRACTS - COMPLETED-CONTRACT METHOD

PREPARED BY
DATE

			Contract Costs						
CONTRACT NAME	Type (1)	Contract Revenues	Materials	Labor	Subcontractor	Other	Total	Gross Profit (Loss)	Profit (Loss) %

(1)CONTRACT TYPE:
A- Fixed - Price
B-Cost - Plus - Fee
C____________

CONSTRUCTION CONTRACT INFORMATION WORKSHEET
December 31, 19XX

Job # ______________________________

Job Name ______________________________

Project Manager ______________________________

Owner Data:

Name ______________________________

Address ______________________________

City, State ______________________________

Description of Work: ______________________________

____

____

Contract Information:

Contract Type ______________________________

Retention % ______________________________

Contract Term ______________________________

Payment Terms ______________________________

Bonding and Insurance Requirements ______________________________

Commencement Date ______________________________

Estimated Completion Date [if applicable] ______________________________

Penalty Provisions ______________________________

Bidding Results:

	CONTRACTOR	*AMOUNT*
#1	________________	________________
#2	________________	________________
#3	________________	________________

Reconciliation of Contract Amount [original contract plus approved change orders as of December 31, 19XX] ________________

	CONTRACT AMOUNT	*DIRECT COSTS*	*GROSS PROFIT*	*GROSS PROFIT %*
At Bid Amount	______	______	______	______
12/31/XY	______	______	______	______
12/31/XX	______	______	______	______

Explanation of Significant Variances ________________

____

____

____

List of Major Subcontractors (attach listing)

Other Details of Interest ________________

____

____

____

FAS 109 YEAR END RECONCILIATION

PREPARED BY
DATE

			CUMULATIVE		CURRENT YEAR				FOOTNOTE		BALANCE SHEET	
							Cumulative					
		Prior Year		Prior Year			Current Year			Valuation		
WP		Workpaper	Difference	Tax Return	Sch M-1	Other	Balance	Tax Rate	Tax Effect	Allowance	Current	NonCurrent
REF	Temporary Difference	DR (CR)	DR (CR)	DR (CR)	DR (CR)	DR (CR)	DR (CR)	%	DR (CR)	(CR)	DR (CR)	DR (CR)
		A	B	C	D	E	F	G	H	I	J	K
	FUTURE BENEFITS (DR)											
										( )		
										( )		
										( )		
										( )		
	NOL Carryforwards By											
	Origination Year:											
										( )		
										( )		
										( )		
										( )		
	Tax Credit Carryforwards:											
										( )		
										( )		
										( )		
										( )		
	GROSS ASSET											
	FUTURE LIABILITIES (CR)											
		( )		( )			( )		( )			
		( )		( )			( )		( )			
		( )		( )			( )		( )			
		( )		( )			( )		( )			
	GROSS LIABILITY											
	TOTAL-NET DR (CR)	======	=======	======	======	====	=======		=======	=======	======	======
			(1)		(2)	(3)						

(1) Material net differences should be tax effected and a reclassification adjustment made between the income tax payable and deferred tax accounts - see Analysis of Income Taxes Payable

(2) Total change in temporary differences to be shown on tax expense computation workpaper.

(3) All "Other" Items must be explained, and, if appropriate, adjustments/relcassifications proposed.

Deferred Tax Asset Valuation Allowance

		Prepared By	
		Date	
INSTRUCTIONS: Prepare this workpaper whenever there is a gross deferred tax asset. If SCHEDULING of the reversal of the future deductions is required to evaluate recoverability, substitute the year–by–year schedule for this workpaper.			
Gross Deferred Tax Asset From FAS 109 year end reconciliation workpaper $____			
Less: Income Taxes (Federal and State) Paid or Payable for Current and Immediately Preceding Two Years. (Exclude State Taxes if no carryback is permitted):			
Tax Paid for 19__ $____			
Tax Paid for 19__ $____			
Tax Paid/Payable for 19_ $____			
Total Paid $____ (A)			
Taxes Refundable accrued at ____, 19__ $____ (Year End)			
Net Prior Tax $(____)			
Deferred Tax Asset not recoverable through carryback –– if negative, show ZERO and provide no allowance $(____)			
Less: Gross Deferred Tax Liability from FAS 109 year end reconciliation workpaper $(____)			
Caution: Deferred Tax Liabilities and Assets of separate jurisdiction (e.g., federal vs. state) should not be offset, if material.			
Deferred Tax Asset to be recovered from future taxable income other than reversal of temporary differences ––if negative, show ZERO and provide no allowance $(____)	(B)		
Test of Profitability:			
i. If a going concern modification would be applicable to this entity, provide a valuation allowance equal to (B) above.			
ii. Amount from (A) above divided by 3 $____ (C)			
(B) divided by (C) $____ (D)			
Is (D) greater than 3? ____ YES	____ NO		
Do the immediately preceding two years show cumulative or zero GAAP earnings? ____ YES	____ NO		
Is next year expected to have a GAAP loss or be break–even? ____ YES	____ NO		
Are there unsettled circumstances that make it more than likely that GAAP profits will be significantly below the average profits of the last three years? ____ YES	____ NO		
If all answers are NO, then no allowance is needed.			
iii. If neither i. nor ii. are applicable, prepare a workpaper analyzing the deferred tax assets and documenting the judgements leading to a partial or full allowance equal to (B).			

				Tax Expense Computation				
								Prepared By
								Date
							Reconciliation	
					Tax		of Expected to	
					Provision		Actual	
		TAX RETURN						
	1.	Income (Loss) Before Income Taxes		$		@ 34%	$	Expected Federal Tax Provision
	2.	Change in temporary differences -						
		Net Schedule M-1 Items						
		from FAS 109 Reconciliation						
WP Ref	3.	Permanent Differences: (list)				Permanent Differences:		
			$			@ 34%		
			$			@ 34%		
			$			@ 34%		
			$			@ 34%		
			$			@ 34%		
			$			@ 34%		
		Total Permanent Differences						
	4.	Taxable Income BEFORE STATE TAXES						
	5.	State Income Tax (%) [Use separate				@66%		State tax, net
		worksheet, if necessary, for						
		computation of state income tax]						
	6.	Taxable Income - FEDERAL						
	7.	Federal Tax - Use Separate Worksheet,						
		if necessary						Graduated rates
	8.	Additional accrual/Rounding						Additional accrual/Rounding
	9.	Total Current Provision						
		DEFERRED TAX						
	10	Beginning of Year (FAS 109 Year End Reconciliation						
		times prior year rate PLUS Tax Credit						
		Carryover)						
	11	End of Year (FAS 109 Year End						
		Reconciliation Column H)						
	12	Gross Change						
	13	Less changes related to Equity Items						
		(FAS 109, par 36):						
		Prior Period Adjustments						
		Noncurrent Marketable Securities						
	14	Net Change				(2)		Rate changes
	15	Valuation Allowance						
		End of Year						Change in Valuation Allowance - Exclude (1) changes due to expiration or
		Beginning of Year						carryforwards and credits, and (2) purchase accounting.
		Change in Valuation Allowance						
	16	Total Deferred Provision						Actual Tax Provision - prepare a separate column or workpaper for continuing
								operations if different than net income.
	17	Total Provisions		$				
				========				
	18	$						
		================						

(1) Note: If DR on FAS 109 year end reconciliation workpaper show as income, if CR on FAS 109 year end reconciliation workpaper show as a deduction.

(2) If a change in tax rate is included, compute by multiplying the change in rate by the beginning of year, (FAS 109 year end reconciliation workpaper Column C) temporary difference and include in the expected to actual reconciliation.

ANALYSIS OF INCOME TAXES PAYABLE

							PREPARED BY:		
							DATE:		
	Federal		State		Additonal				
	Current	Payable	Current	Payable	Accrual (A)		Deferred	Taxes	
	DR	CR	DR	CR	DR	CR	DR	CR	
1. Beginning balance (per Prior Year adjusted TB)									
2. Payment (Refunds) on 19__ Tax Returns:									
Federal									
State									
Subtotal									
									Total
3. 19__ Tax Provisions - per books before audit adjustment									
4. 19__ Estimates Pd: 1st qtr. Fed ____									
1st qtr State ____									
2nd qtr Fed ____									
2nd qtr State ____									
3rd qtr Fed ____									
3rd qtr State ____									
4th qtr Fed ____									
4th qtr State ____									
5. Other Items:									
6. BALANCE per unadjusted trial balance									
7. AJE ___ (to reclass current/deferred per FAS 109 Year end reconciliation, instruction 1									
8. AJE ____ (to adjust to Tax Comp @ tax expense computation workpaper)									
9. Adjusted Balance	=======	=======	=======	=======	=======	=======		=======	=======
		1		2					(B)
							( )		
							=======		

10	Reconciliation of Current Payable	
	Federal Current Payable	State Current Payable
Tax (Credit) per Current Year Return or Accrual:		
Estimates Paid:		
Federal		
State		
Balance	=======	=======
	(1)	(2)

(A) Entities will not normally have a separate additional accrual account. However, for our workpaper purposes, separately schedule any additional accrual and track it from year to year.

(B) Should be equal to the Total Provision on tax expense computation work paper.

Completing the Audit

CHAPTER 8

COMPLETING THE AUDIT

Table of Contents

Table of Contents (Continued)

CHAPTER 8

COMPLETING THE AUDIT

Table of Contents (Continued)

CHAPTER 8

COMPLETING THE AUDIT

8.000 INTRODUCTION

8.001 Completing the audit is often the most critical, yet most underestimated, phase of the audit in terms of the amount of time required and its importance to meeting the audit objectives. Good engagement "wrap-up" involves more than just the administrative tasks that first come to mind; it requires summarizing and evaluating audit findings, determining that the proper opinion and other reports are issued, performing a final review of the financial statements, and ensuring that the audit procedures and working papers conform with authoritative standards, as well as the firm's quality control policies and procedures.

8.002 Except for completing performance appraisals and final time summary, these procedures should be performed before engagement personnel leave the client's offices. The procedures and the applicable authoritative literature are discussed in the following sections.

8.100 ANALYTICAL PROCEDURES

8.101 As discussed in Chapter 4, analytical procedures are required to be performed in planning the nature, timing, and extent of auditing procedures. Chapter 7 discusses how analytical procedures are used as substantive tests to obtain evidential matter about particular assertions related to account balances and classes of transactions.

8.102 SAS No. 56, *Analytical Procedures* (AU 329.04), also requires the use of analytical procedures "as an overall review of the financial information in the final review stage of the audit." Paragraph 22 of SAS No. 56 (AU 329.22) says:

> The objective of analytical procedures used in the overall review stage of the audit is to assist the auditor in assessing the conclusions reached and in the evaluation of the overall financial statement presentation.

8.103 Overall review procedures generally include reading the financial statements and notes and considering:

- Whether evidence gathered during the audit as to unusual or unexpected balances was adequate, and
- Whether there are any unusual or unexpected balances or relationships not identified during the audit.

The results of these procedures may require the auditor to perform additional tests.

8.104 Documentation of the overall review need not be elaborate. In fact, signing a program step indicating that the review was performed, with a conclusion as to the results of the review, may be sufficient. However, if the results of the overall review indicate that additional procedures must be performed, the authors recommend that such procedures be documented in a separate memo or working paper.

8.105 The review should be performed by someone familiar with all aspects of the engagement; generally they are performed by the in-charge. However, the engagement partner may be in a better position to provide a critical and objective review of the financial presentation.

8.106 The Engagement Performance Review Checklist in section 8.907 contains a step that requires performance of the overall review.

8.200 OBTAINING LEGAL LETTERS

8.201 SAS No. 12, *Inquiry of a Client's Lawyer Concerning Litigation, Claims, and Assessments* (AU 337), provides guidance to the auditor in (1) identifying litigation, claims, and assessments, (2) determining that such matters are appropriately reflected in the financial statements, and (3) issuing the appropriate auditor's report.

8.202 The auditor's procedures for identifying litigation, claims, and assessments should include:

- Inquiring of and discussing with management the policies and procedures for identifying, evaluating, and accounting for litigation, claims, and assessments.
- Obtaining from management a description and evaluation of litigation, claims, and assessments that existed at the balance-sheet date and up to the date the information is furnished (which should be the auditor's report date), including matters referred to legal counsel, and assurance from management that all matters required to be disclosed by SFAS No. 5, *Accounting for Contingencies*, have been disclosed.
- Examining the client's documents concerning litigation, claims, and assessments.
- Obtaining assurance from management that it has disclosed all unasserted claims that the lawyer has advised them are probable of assertion and must be disclosed in accordance with SFAS No. 5. (This assurance is generally stated in the client's letter of inquiry to the lawyers.)

8.203 The auditor should be aware that certain other procedures performed for different purposes may also uncover litigation, claims, and assessments, including:

- Reading minutes of meetings of management and appropriate committees held during and subsequent to the period being audited.
- Obtaining information concerning guarantees from bank confirmation forms.
- Inspecting other documents for possible guarantees by the client.

8.204 A letter of inquiry to the client's legal counsel is the auditor's primary means of obtaining corroborating evidence of the information provided by management about litigation, claims, and assessments. This letter of inquiry and the lawyers' responses are so important that the client's refusal to send the letter or the lawyer's refusal to respond fully would be considered a limitation on the scope of the audit.

8.205 Letters should be sent to all lawyers who devoted substantial attention on behalf of the client to pending or threatened litigation and asserted or unasserted claims and assessments in the form of legal consultation or representation. A review of the client's correspondence with its lawyers, the lawyers' billings for services, and prior year's working papers are good sources of information for identifying the lawyers to whom letters of inquiry should be sent.

8.206 SAS No. 12 (AU 337.09) lists the following matters that should be covered in the letter of inquiry:

a. Identification of the organization and the date of the audit.

b. A list prepared by management (or a request that the lawyer prepare the list) that describes and evaluates pending or threatened litigation, claims, and assessments that the lawyer has been engaged to handle, and to which the lawyer has devoted substantial attention on behalf of the organization.

c. A list prepared by management that describes and evaluates unasserted claims and assessments that management considers to be probable of assertion and that, if asserted, would have at least a reasonable possibility of an unfavorable outcome to which the lawyer has devoted substantial attention on behalf of the organization.

d. As to each matter in item b., a request that the lawyer either furnish the following or comment on matters as to which his or her views may differ from those stated by management:

   (1) A description of the nature of the matter, the progress of the case to date, and the action the company intends to take.

   (2) An evaluation of the likelihood of an unfavorable outcome and an estimate, if possible, of the amount or range of potential loss.

   (3) With respect to a list prepared by management, an identification of the omission of any pending or threatened litigation, claims, and assessments or a statement that the list of such matters is complete.

e. As to each matter in item c., a request that the lawyer comment on those matters to which his or her views about the description or evaluation of the matter differ from those stated by management.

f. A statement by management that they understand that whenever, in the course of performing legal services regarding a matter recognized to involve an unasserted possible claim or assessment that may require financial statement disclosure, the lawyer has formed a professional conclusion that management should disclose or consider disclosing the possible claim or assessment, the lawyer will so advise management and consult with management about the disclosure and applicable requirements of SFAS No. 5.

g. A request that the lawyer confirm whether the understanding described in item f. is correct.

h. A request that the lawyer specifically identify the nature of and reasons for any limitations on his or her response.

Other Considerations in the Letter

8.207 Immaterial Matters. To avoid requiring the lawyer to respond to clearly immaterial matters, many auditors will have the client include in the letter of inquiry an instruction that the lawyer need address only matters exceeding a specified dollar amount. This amount should be mutually agreed upon by the client and the auditor.

8.208 Timing of Letter and Response. Generally, letters of inquiry are sent at the beginning of year-end field work to give the lawyers adequate time to respond. Many auditors have the client specify the date of the lawyer's response, because SAS No. 1, Section 560, *Subsequent Events* (AU 560), requires the auditor to inquire of the client's lawyer about litigation, claims, and assessments for the period from the balance-sheet date through the date of the auditor's report, which is generally the date of completion of field work. The specified date is generally slightly before the completion of field work to allow the auditor adequate time to evaluate the responses. As a practical matter, if the lawyer's response is dated more than two weeks before the completion of field work, the auditor may decide to obtain an oral update directly from the lawyer. The results of this oral response should be documented.

8.209 Request for Unpaid and Unbilled Fees. To obtain information about unrecorded liabilities, many auditors have the client include a request that the lawyer indicate the amount of any unpaid or unbilled fees as of the balance-sheet date.

8.210 If the auditor becomes aware that the client's lawyers have resigned or have been changed either during the year or subsequent to year-end, the auditor should inquire as to the reasons for the resignation.

8.211 The in-charge and partner should carefully read and evaluate responses to determine that all significant litigation, claims, and assessments have been properly accounted for and disclosed, and to identify any limitations of the response, either expressly or by omission. Conclusions should be documented by the in-charge and reviewed by the partner. Illustrative inquiry letters to legal counsel are included in sections 8.901 and 8.902.

8.300 SUBSEQUENT EVENTS

8.301 Completing the audit includes performing certain procedures to identify whether any events have occurred since the balance-sheet date that would require adjustment to or disclosure in the financial statements. SAS No. 1, Section 560, *Subsequent Events* (AU 560.12), states:

> ...the independent auditor should perform other auditing procedures with respect to the period after the balance-sheet date for the purpose of ascertaining the occurrence of subsequent events that may require adjustment or disclosure essential to a fair presentation of the financial statements. . . . These procedures should be performed at or near the completion of the field work.

8.302 Procedures the auditor should perform to identify and evaluate subsequent events include:

- Read the latest available interim financial statements, compare them with the financial statements being reported on, and make any other comparisons considered necessary. The auditor should determine whether the interim statements have been prepared on the same basis as that used for the audited financial statements.
- Inquire of and discuss with management and owners having responsibility for financial and accounting matters as to:
  - The existence of any substantial contingent liabilities or commitments at the balance-sheet date or at the date of inquiry.
  - Any significant changes in long-term debt or working capital that have occurred up to the date of inquiry.
  - The current status of items that were accounted for on the basis of tentative, preliminary, or inconclusive data.
  - Any unusual adjustments made during the period from the balance-sheet date to the date of inquiry.
- Read the available minutes of meetings shareholders, directors, and committees.
- Inquire of the client's legal counsel concerning litigation, claims, and assessments.
- Obtain a representation letter from the client that includes a statement about whether any events have occurred subsequent to the balance-sheet date that, in the client's opinion, would require adjustment to or disclosure in the financial statements.
- Make any other inquiries or perform other procedures considered necessary.

8.303 To document performance of these procedures, the Subsequent Events Review Program is included in section 8.903.

8.400 SUMMARY OF POSSIBLE JOURNAL ENTRIES

8.401 SAS No. 22, *Planning and Supervision* (AU 311), requires the consideration of an overall materiality limit during planning. SAS No. 47, *Audit Risk and Materiality in Conducting an Audit* (AU 312), requires the subsequent evaluation of misstatements by comparing the known, but unadjusted, and the estimated or projected misstatements, to the overall materiality limit. Auditors should think of materiality as a constantly evolving benchmark, rather than as a fixed amount calculated at the beginning of the engagement and carried through to its completion. Materiality should be revised as necessary during the course of the audit as new information arises and as the context in which materiality is used changes. The Summary of Possible Journal Entries Form is designed so that the auditor can subjectively consider whether the effects of possible journal entries are material to the financial statements as a whole.

8.402 The Summary of Possible Journal Entries Form in section 8.904 should be used to evaluate the effect of unadjusted misstatements on the financial statements.

8.403 The following types of misstatements should be included in the Summary of Possible Journal Entries Form:

- Known but unadjusted misstatements.
- Projected misstatements from sampling applications.
- Estimated misstatements from predictive analytical procedures.

Misstatements From the Prior Year

8.404 Often overlooked is the consideration of misstatements detected in the prior year that affect the current year. For example, assume last year's Summary of Possible Journal Entries Form included an item representing a $500 overstatement of prepaid insurance and an understatement of insurance expense. This item should also be posted to the current year's form because it affects the current year's insurance expense. Therefore, the prior year's Summary of Possible Journal Entries Form should be reviewed for any items that may have an effect on the current year's financial statements, and such items should be posted to the current year's form.

Practice Tip:

In considering the effects of prior year's possible journal entries on the current year's financial statements, be alert for items that carry over and accumulate from year to year, such as an understatement of the prior year's allowance for bad debts of $10,000 that has increased to $15,000 in the current year. Even though such misstatements may be immaterial to the current and prior year's income statements and balance sheets, the authors recommend that you urge your clients to correct such misstatements before they become material.

Establishing Thresholds for Posting Unadjusted Misstatements

8.405 Some firms establish a predetermined dollar threshold above which misstatements should be recorded as adjusting entries, and below which misstatements should be posted to the Summary of Possible Journal Entries Form as unadjusted misstatements. Often such a threshold results from the client's desire to record all misstatements detected during the audit that exceed a certain dollar amount. Other firms prefer to not establish such a threshold because they believe this decision should be based on the nature or sensitivity of the accounts affected by the misstatement.

8.406 To avoid posting clearly inconsequential misstatements, many firms also establish a threshold below which items are not to be posted to the Summary of Possible Journal Entries Form. In other words, they establish a minimum dollar amount that a misstatement must exceed to qualify for posting to the Summary. For example, if this minimum amount were $10.00, and a $9.00 misstatement is detected in cash, the misstatement would be noted in the cash workpapers, but not posted to the Summary of Possible Journal Entries Form. This process can often save valuable engagement time.

Using the Summary

8.407 The Summary of Possible Journal Entries Form should be prepared for all audit engagements by the in-charge and reviewed by the engagement partner.

> **Practice Tip:**
>
> Because professional judgment is needed to assess materiality and the effects that misstatements have on the financial statements, it is very important that the engagement partner participate in completing the Form. The partner therefore, should review each possible journal entry, as well as the final conclusion.

8.408 The overall materiality limit obtained from the Materiality Computation Form (Chapter 4, section 4.507) should be indicated in the space provided. Also, the dollar value over which misstatements should be posted to the Form should be indicated in the space provided.

8.409 The Summary of Possible Journal Entries Form has been designed to permit the evaluation of the effect of unrecorded misstatements on both the financial statements taken as a whole and on key components of the financial statements (i.e., current assets, noncurrent assets, etc.).

8.410 The Form is designed to permit easy evaluation of misstatements by key components of the financial statements, such as current and noncurrent assets, current and noncurrent liabilities, net assets, and the income statement. Misstatements should be posted to the Form in the appropriate columns (for Lotus 1-2-3 formulas, debits should be positive amounts and credits should be negative amounts).

8.411 Misstatements affecting the income statement are further broken down into three categories: known, estimated, and projected. "Known" misstatements are those for which the amount of the error is relatively certain. Such misstatements are often supported by highly reliable evidence, such as third-party documents. An example of a known misstatement would be a failure to record an invoice for repairs expense. Such an item would be posted to the Form as a debit (positive amount) in the "Known Misstatements" column and a credit (negative amount) in the "Current Liabilities" column.

8.412 As the term implies, "estimated" misstatements, are items for which the amount of the misstatement must be estimated. For example, if the auditor believes, based on prior collection history, that the client's reserve for bad debts is understated, the auditor would determine (with the client's assistance and input) the additional reserve needed, and would post this estimate to the Form as a debit (positive amount) in the "Estimated Misstatements" column and a credit (negative amount) in the "Current Liabilities" column.

8.413 "Projected" misstatements arise from projecting sampling errors to the sampling population (see the Audit Sampling Evaluation Form — Tests of Balances Sampling, section 5.604). For example, if a $1,000 accounts receivable misstatement is found in a sample of 10% of the population, the projected misstatement would be $10,000 (posted as a debit to the "Current Assets" column and a credit to the

"Projected Misstatements" column). It is important to distinguish between the different types of income statement misstatements to aid in assessing the overall impact the unrecorded misstatements have on the financial statements. The "Total" column in the income statement section represents the sum of the known, estimated, and projected misstatements in the income statement columns.

8.414 After all possible journal entries have been posted to the Form and reviewed by the engagement partner, they should be discussed with the client. All entries subsequently recorded by the client should be removed from this Form and recorded on the trial balance so that only **unrecorded** entries remain on the Form. The columns for each key component should be totaled and then compared to the overall materiality limit. The total unrecorded income statement misstatements should be tax effected using the client's effective tax rate and compared to net income. The total unrecorded misstatements should be compared to the financial statement totals as a whole and by key component.

8.415 Concluding on the effect of misstatements on the financial statements is a matter of judgement and generally involves considering the nature of the misstatements (known, estimated or projected), overall materiality, and their impact on the financial statements taken as a whole. In instances when net income approaches zero, other factors may be considered, such as the effect of the misstatements on net assets, whether recording the adjustment to correct the misstatements would cause net income to become a loss, and historical earnings trends of the entity.

8.416 Adjustments would be proposed after considering the aggregate effects of all of the misstatements. If there are no known, projected, or estimated misstatements, this fact should be documented on the Summary of Possible Journal Entries Form.

8.500 CLIENT REPRESENTATIONS

8.501 The purpose of a client representation letter is to document oral and written representations made by a client to firm personnel during the course of an engagement, including representations made through the financial statements. While these representations are not a substitute for applying necessary auditing procedures, they are an important part of the evidential matter auditors must obtain. Further, the auditor should discuss the letter with the client since the client needs to understand the significance of the letter rather than making the letter a mere formality. Management's refusal to sign the representation letter constitutes a scope limitation. In such situations, the auditor would issue a qualified or disclaimer of opinion. The authors believe that, in most cases, auditors should disclaim an opinion, because management's refusal to sign the representation letter indicates that all other written and oral representations made during the audit cannot be relied on.

8.502 SAS No. 19, *Client Representations* (AU 333), establishes a requirement that the independent auditor obtain written representations from management as part of an audit performed in accordance with generally accepted auditing standards. Further, the auditor should discuss the letter with the client since the client needs to understand the significance of the letter rather than making the letter a mere formality.

8.503 The AICPA Audit and Accounting Guide, *Construction Contractors* (AAG-CON), reiterates that requirement and indicates certain industry-specific representations that the auditor should obtain in a construction contractor audit engagement (see section 8.507).

8.504 The client representation letter is considered such an important piece of audit evidence that SAS No. 19, paragraph 11 (AU 333.11), states:

> Management's refusal to furnish written representations constitutes a limitation on the scope of the audit sufficient to preclude an unqualified opinion.

8.505 The Statement continues by stating if management refuses to furnish written representations, the auditor should consider the effect of this refusal on his or her ability to rely on other representations. In such situations, the auditor would issue a qualified or disclaimer of opinion due to a scope limitation. The authors believe that, in most cases, auditors should disclaim an opinion, because management's refusal to sign the representation letter indicates that all other written and oral representations made during the audit cannot be relied on.

8.506 SAS No. 19 explains the rationale for requiring written representations from management. Put simply, the auditor relies on management's responses to inquiries as well as the information management presents in its financial statements. An auditor performs the auditing procedures considered necessary in order to render an opinion on the financial statements, and obtaining written representations from management is a part of those audit procedures. When management provides written representations to the auditor, it confirms oral representations made throughout the audit, addresses the continued appropriateness of the representations, and reduces the possibility of any misunderstanding concerning the representations.

8.507 SAS No. 19 does not specify the form and content of a client representation letter; however, SAS No. 19 (AU 333.04) and the Guide (AAG-CON 10.62) each provide a detailed listing of representations the auditor should consider obtaining. Those that apply to most construction contractor audit engagements include:

- Management's acknowledgement of its responsibility for the fair presentation of the financial statements.
- Availability of all financial records and related data.
- Absence of errors in the financial statements and unrecorded transactions.
- Method of income recognition used.
- Provisions for losses on contracts.
- Unapproved change orders, claims, and contract postponements or cancellations.
- Backlog information if presented in the financial statements.
- Information about joint-venture participations and other related-party transactions.
- Noncompliance with aspects of contractual agreements that may affect the financial statements.
- Information about subsequent events.
- Irregularities involving management or employees.
- Communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.

- Plans or intentions that may affect the carrying value or classification of assets or liabilities.
- Disclosure of compensating balance or other arrangements involving restrictions on cash balances, and disclosure of line-of-credit or similar arrangements.
- Reduction of excess or obsolete inventories to net realizable value.
- Satisfactory title to assets, liens on assets, and assets pledged as collateral.
- Agreements to repurchase assets previously sold.
- Losses from purchase commitments for excess inventory quantities or at prices above market.
- Violations or possible violations of laws or regulations whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency.
- Other liabilities and gain or loss contingencies that are required to be accrued or disclosed by SFAS No. 5, *Accounting for Contingencies* (AC 59).
- Other Significant Risks and Uncertainties required to be accrued or disclosed by SOP No. 94-6, *Disclosure of Certain Significant Risks and Uncertainties*.

8.508 The client representation letter should be dated as of the date of the auditor's report, signed by at least the chief executive officer and the chief financial officer of the entity, and filed with the current engagement working papers. A sample client representation letter for an audit of a construction contractor is shown in section 8.905. This letter should be tailored to fit the circumstances of each client.

8.600 REQUIRED COMMUNICATIONS

Overview

8.601 Several SASs require that certain matters be communicated to clients. The following is a summary of these requirements for audits conducted in accordance with generally accepted auditing standards (GAAS):

- SAS No. 60, *Communication of Internal Control Structure Related Matters Noted in an Audit* (AU 325), requires that auditors communicate deficiencies in the design and operation of the entity's control structure (referred to as "reportable conditions") that could adversely affect the organization's ability to record, process, summarize, and report financial data consistent with management's financial statement assertions regarding existence or occurrence, completeness, rights and obligations, valuation or allocation, and presentation and disclosure.
- SAS No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities* (AU 316), and SAS No. 54, *Illegal Acts by Clients* (AU 317), require auditors to report any irregularities and illegal acts (unless they are clearly inconsequential) the auditor becomes aware of during the course of the audit.
- SAS No. 61, *Communications with Audit Committees* (AU 380), specifies certain audit-related matters that auditors should communicate to their clients.

8.602 Although the title of SAS No. 61 seems to indicate that it only applies to entities that have audit committees, it in fact applies to any entity that has formally designated oversight of the financial reporting process to a group equivalent to an audit committee, such as a finance or budget committee. As a result, if the construction contractor has an audit committee or a formally designated oversight group, the auditor would be required to communicate the matters discussed in SAS No. 61 (see section 8.618). If the contractor does **not** have an audit committee or formally designated group that oversees the financial reporting process, auditors may choose to communicate the matters discussed in SAS No. 61 if they believe management would benefit from such communication.

8.603 Persons to Whom Communications Should be Directed. Communications under the four SASs listed above should be directed to the audit committee, or if there is no audit committee, to the individuals with equivalent authority, such as management. As mentioned above, the SAS No. 61 communication is not required if there is no formally designated group responsible for overseeing the financial reporting process; however, communications of internal control structure related matters and irregularities and illegal acts are required even if the organization does not have an audit committee.

8.604 Must the Communications be in Writing? The communications required under SAS Nos. 53, 54, 60, and 61 may be either oral or written. Oral communications should be documented in the working papers. Written communications should indicate that they are solely for the use of the board of directors, audit committee, supervisory committee, or, if appropriate, management.

8.605 The required communications are generally made at the end of the audit. However, if the matter is significant or requires immediate corrective action, the auditor may want to communicate the matter before the end of the audit. The Engagement Performance Review Checklist in section 8.907 contains a step to remind engagement personnel that these communications must be made.

Internal Control Structure Related Matters

8.606 As mentioned in section 8.601, as a part of an audit in accordance with GAAS, an auditor must communicate to the client reportable conditions noted in an audit. SAS No. 60, *Communication of Internal Control Structure Related Matters Noted in an Audit* (AU 325.02), explains that:

> . . . *reportable conditions* are matters coming to the auditor's attention that, in his judgment, should be communicated to the audit committee because they represent significant deficiencies in the design or operation of the internal control structure, which could adversely affect the organization's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. Such deficiencies may involve aspects of the internal control structure elements of (a) the control environment, (b) the accounting system, or (c) control procedures.
>
> *Material weaknesses* are reportable conditions in which the design or operation of one or more of the specific internal control structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

8.607 SAS No. 60 establishes two categories of reportable conditions: deficiencies in the design of the internal control structure, and deficiencies in the operation of the internal control structure. Design deficiencies relate to inadequate or absent control structure policies and procedures that could adversely affect the entity's ability to record and report financial information. For example, a design deficiency could exist in a construction contractor if it does not have policies and procedures that require appropriate segregation of duties among those who approve change orders, those who request change orders, and those who post to or reconcile change order records. A deficiency in the operation of the control structure occurs when the entity has designed appropriate control policies and procedures, but they are not being followed or they are ineffective. Using the example above, an operational deficiency would occur if the construction contractor's policies and procedures require a segregation of the three duties, but in fact only one person performs all three functions.

8.608 **Material Weaknesses.** Some reportable conditions may be of such a magnitude that a material error or irregularity could occur and not be detected timely by employees in performing their normal assigned functions. These reportable conditions are considered material weaknesses. Many auditors separately identify material weaknesses from other reportable conditions in their written communications, either because the client asks them to do so or because they want to emphasize the conditions; however SAS No. 60 does not require that an auditor separately identify material weaknesses in the report on reportable conditions.

8.609 **Operations and Management-Related Matters.** SAS No. 60 also recognizes that an auditor may identify other matters during the course of the audit that would benefit management or the audit committee that are not reportable conditions. For example, the auditor may want to communicate to management suggestions for improving operational and administrative efficiencies. In communications that contain both reportable conditions (see section 8.606) and other matters, each should be clearly identified.

8.610 **Reporting Requirements.** The report on reportable conditions in accordance with GAAS should:

- Indicate that the purpose of the audit was to report on the financial statements and not to provide assurance on the internal control structure.
- Include the definition of reportable conditions.
- Include the restriction on distribution that states that the communication is intended solely for the information and use of the audit committee, management, and others within the credit union.

To avoid misunderstandings, a written communication indicating that no reportable conditions were noted during the audit should *not* be issued.

8.611 The following is a sample report on reportable conditions based on the guidance in SAS No. 60 (AU 325.12):

> In planning and performing our audit of the financial statements of the ABC Construction Contractor for the year ended December 31, 19XX, we considered its internal control structure in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control structure. However, we noted certain matters involving the internal control structure and

its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control structure that, in our judgment, could adversely affect the credit union's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements.

(Describe the reportable conditions noted.)

This report is intended solely for the information and use of the audit committee, management, and others within the construction contractor (or specified regulatory agency or other specified third party).

A sample report on reportable conditions is shown at section 8.906.

8.612 When reportable conditions have been identified but none is deemed a material weakness, the auditor may use the following format for a written communication:

(Include the first paragraph of the report illustrated in section 8.611.)

(Describe the reportable conditions noted.)

A material weakness is a reportable condition in which the design or operation of one or more of the internal control structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses as defined above. However, none of the reportable conditions described above is believed to be a material weakness.

(Include the final paragraph from section 8.611 above.)

8.613 The Internal Control Structure Reportable Conditions Form included in section 6.500, Chapter 6 is provided to accumulate the reportable conditions identified during the course of an audit. The Engagement Performance Review Checklist in section 8.907 contains a reminder to perform this communication before the engagement is completed.

Errors, Irregularities, and Illegal Acts

8.614 Audit planning involves assessing the risk that errors, irregularities, and illegal acts having a direct effect on financial statement amounts may occur and cause the financial statements to contain a material misstatement. The auditor's responsibility to assess this risk and design appropriate auditing procedures to reduce this risk to an acceptable level is discussed in sections 4.323-4.333 of Chapter 4.

8.615 Communication of Irregularities and Illegal Acts. SAS Nos. 53 and 54 require the auditor to ensure that the construction contractor's audit committee, or others of equivalent authority, is adequately informed of any irregularities and illegal acts having direct and indirect effects on the financial statements, unless they are clearly inconsequential. If senior management participates in the illegal act, the auditor must directly inform the audit committee. With respect to illegal acts, the communication should describe the act, the circumstances of its occurrence, and its effect on the financial statements.

8.616 Communication of Errors. SAS No. 53 does not specifically require that errors be communicated; however, if the construction contractor is subject to SAS No. 61 (that is, it has an audit committee or other formally designated group responsible for oversight of the financial reporting process), then the auditor must communicate information about errors in the financial statements. See section 8.618 for a discussion of the communication requirements under SAS No. 61.

8.617 The Engagement Performance Review Checklist in section 8.907 contains a step to remind the auditor of the requirements to communicate irregularities and illegal acts.

Other Matters

8.618 SAS No. 61, *Communication With Audit Committees* (AU 380), requires the auditor to communicate certain matters about the scope and results of the audit that may assist the audit committee in overseeing the financial reporting and disclosure process. As mentioned in section 8.602, this communication is required only for organizations that have an audit committee or formally designated group responsible for the oversight of the financial reporting process; however, auditors of construction contractors that do not have such groups may find such communications beneficial. SAS No. 61 (AU 380.06-.14) requires communication of the following matters:

- The level of responsibility assumed by the auditor in an audit performed in accordance with GAAS concerning matters of interest to an audit committee, such as the internal control structure and whether the financial statements are free of material misstatement.
- The initial selection of and changes in significant accounting policies or their application, including methods used to account for significant unusual transactions and the effect of significant accounting policies in controversial or emerging areas for which there is no authoritative guidance or consensus.
- The process used by management in formulating particularly sensitive accounting estimates and the basis for the auditor's conclusions about the reasonableness of those estimates.
- Adjustments arising from the audit that could, in the auditor's judgment, either individually or in the aggregate, have a significant effect on the organization's financial reporting process.

- The auditor's responsibility for other information in documents containing audited financial statements, any procedures performed, and the results.
- Disagreements with management, whether or not satisfactorily resolved, if they relate to matters that individually or in the aggregate could be significant to the entity's financial statements or the auditor's report. These disagreements may relate to:
  - the application of accounting principles to specific transactions and events,
  - the basis for management's judgments about accounting estimates,
  - the scope of the audit or the wording of the auditor's report, or
  - disclosures to be included in the entity's financial statements.
- The auditor's views about matters that were the subject of management's consultation with other accountants about auditing and accounting matters.
- Any major issues discussed with management in connection with the initial or recurring retention of the auditor including, any discussion about the application of accounting principles and auditing standards.
- Any serious difficulties encountered in dealing with management during the audit, such as unreasonable delays by management in permitting the commencement of the audit or in providing needed information, whether the timetable set by management was unreasonable under the circumstances, the unavailability of client personnel, or the failure of client personnel to complete client-prepared schedules on a timely basis.

8.619 The Engagement Performance Review Checklist in section 8.907 contains a step to remind the auditor of this required communication.

8.700 SUPERVISION AND REVIEW CHECKLISTS AND PREPARING FINANCIAL STATEMENTS AND AUDITOR'S REPORTS

Supervision and Review

8.701 An often underestimated aspect of an audit engagement is supervision of engagement personnel and review of the audit working papers, financial statements, and reports. Included in this chapter are discussions and practice aids that serve as guidance for and documentation of the various supervision and review requirements in a typical audit engagement:

- Review of the tax accrual and provision review and the preparation of the tax return by the tax specialist (referred to as the "tax partner") assigned to the engagement.
- Review of events that have occurred subsequent to the balance-sheet date for any matters that could require adjustment to or disclosure in the financial statements.
- Review of the engagement working papers by the in-charge and engagement partner to ensure that the work performed complies with professional standards, including the quality control standards.

- Obtaining a technical review by someone not associated with the engagement on matters that require such review under the firm's quality control policies and procedures.
- Controlling the preparation of the financial statements, the signing of the auditor's report, and release of the financial statements to the client.

8.702 Effective supervision, one of the nine elements of a system of quality control for CPA firms outlined in the SQCS No. 1, is an essential element of quality, efficient engagements. This Statement requires firms to establish policies and procedures for conducting and supervising work at all organizational levels in order to provide reasonable assurance that the work performed meets professional standards. The sample quality control policies and procedures found in QC 90.16 provide the following three basic objectives for designing a quality control system for supervision:

- Provide procedures for planning engagements.
- Provide procedures for maintaining the firm's standards of quality for the work performed.
- Provide procedures for reviewing engagement working papers and reports.

Each firm should design quality control policies and procedures for supervision and review that fit its unique organizational and operating characteristics.

Tax Accrual/Provision Review

8.703 The Contractor's Tax Accrual/Provision Review Checklist (section 8.910) should be completed by the tax partner and approved by the engagement partner after all adjustments have been completed and all notes to the financial statements have been drafted. The Checklist documents the review of the propriety of the client's income tax liabilities and assets, and related expense (or benefit), and financial statement disclosures.

8.704 The tax partner should ascertain, based on his or her review of the applicable working papers and notes to the financial statements, that the tax provision and accruals are reasonable and adequate. This process includes reviewing differences between financial and income tax reporting to determine that the distinction between, and computation of, current and deferred taxes is appropriate. Any problems should be discussed with the engagement partner. The tax partner should initial and date each step as it is completed, sign and date the Checklist in the space provided, and submit the completed Tax Accrual/Provision Review Checklist to the engagement partner.

8.705 The engagement partner's signature on the Checklist indicates that he or she is satisfied that the review has been properly performed.

8.706 The Contractors' Supplement to Tax Return Preparation Checklist (section 8.911) should be completed by the tax partner and approved by the engagement partner. The checklist documents the completion and approval of the income tax return.

8.707 Proper supervision should include, among other things, the following:

- Helping assistants design procedures to resolve engagement problems early.

- Making sure assistants thoroughly understand the objectives and procedures of an assignment before beginning.
- Helping assistants to prioritize, organize, and control the approach to assigned work areas.
- Periodically checking on the assistant's progress.
- Keeping assistants informed of other engagement matters affecting the assigned work area.
- Rotating work assignments and offering assistants opportunities to work in new areas.
- Motivating assistants to maximum performance levels.
- Supervising paraprofessionals and temporary help.
- Appraising staff performance.

Review of Working Papers

8.708 The firm's quality control system for supervision should address procedures for reviewing working papers, including who performs these reviews, and how the reviews are documented. In most firms the in-charge performs a detailed review of the work of all assistants to determine that sufficient evidence has been gathered to accomplish the engagement objectives and that the engagement procedures and documentation are in accordance with the firm's quality control policies and procedures. Also, the in-charge initials and dates each working paper to indicate that he or she is satisfied with the work performed.

8.709 The engagement partner is responsible for reviewing work performed by the in-charge and the results of the in-charge's review of assistants' working papers. The objectives of his or her review is to determine that sufficient evidence has been gathered to accomplish engagement objectives and that the engagement procedures and documentation are in accordance with the firm's quality control standards. The engagement partner generally reviews all of the working papers, and documents this review by initialing and dating each working paper.

8.710 The engagement partner's review should also determine that all firm quality control standards have been met. Depending on the complexity of the engagement, and the experience of staff, the partner may review all engagement working papers, or may choose to review only the working papers supporting material or unusual audit areas. Working paper reviews by the partner may be documented by initials on the applicable lines of the working trial balance or lead sheets, or on the individual working papers. The checklists reviewed should be signed in the space provided for the partner.

8.711 **The In-charge Review.** The in-charge's detailed review of assistant's work should be performed as frequently as possible, as each audit area is completed. Immediate feedback is often difficult to give under the time constraints of an audit, but is essential to providing effective on-the-job training. The in-charge's review procedures should include at least the following:

- Review applicable section of last year's working papers.
- Review the applicable section of the work program.
- Compare current and prior period trial balance accounts related to the work area and note variations.

- Briefly review the content of the working papers.
- Read the conclusions.
- Review the working papers in detail for:
  - Mathematical accuracy.
  - Accomplishment of the purposes of the documentation, i.e., engagement objectives.
  - Proper performance of procedures.
  - Reasonableness of judgments.
  - Identification and follow-up of exceptions.
  - Resolution of problems and questions.
  - Projection of sample results to the population.
- Determine that all work program procedures have been completed correctly.

8.712 The Engagement Manager Review. Some firms use an engagement manager to review the work of engagement personnel as frequently as practical. The engagement manager's review should be conducted in the field whenever possible. Field reviews allow problem resolution while staff is working on the engagement, prevent typical office interruptions, enable the engagement manager to schedule review time, and allow the engagement manager to be seen by client personnel. In this Manual, places where engagement personnel sign the forms do not allow for a manager review. However, the forms should be modified for engagements in which the manager will perform many of the engagement partner's detailed review functions.

8.713 The Engagement Partner Review. The engagement partner should review the work of engagement personnel as frequently as practical. Acceptable reasons for reviewing the engagement only after its final completion are rare. The engagement partner's review should be conducted in the field whenever possible. Field reviews allow problem resolution while staff is working on the engagement, prevent typical office interruptions, enable the engagement partner to schedule review time, and allow the engagement partner to be seen by client personnel. The engagement partner's review may, as previously mentioned, be conducted in greater or lesser detail depending on the complexity and size of the engagement and on the experience of engagement personnel. The engagement partner's review should also be conducted in the field whenever possible. Except for periodic discussions with engagement personnel, the engagement partner's review will normally occur during the final stages of the engagement.

Using the Engagement Performance Review Checklist

8.714 Completion of the Engagement Performance Review Checklist documents that the in-charge and engagement partner are satisfied that engagement personnel have been properly supervised and the work performed has been properly reviewed.

8.715 The Engagement Performance Review Checklist should be completed to document the review of construction contractor audit engagements. Foregoing the technical review (section 8.907) must be approved by the firm or office accounting and auditing partner. Such approval must be documented in a memo to the engagement file. Any problems discovered in the technical review should be discussed with the engagement executive. Resolution of the problems should be documented in separate memoranda.

8.716 **The Technical Review.** As part of their quality control system for the supervision element, many firms require preissuance, technical reviews of reports and related financial statements, and often the engagement working papers, by persons not involved with the engagement. Such reviews are performed to give the firm assurance that the auditor's report, related financial statements and the engagement working papers comply with professional standards and the firm's quality control system.

8.717 As with all quality control policies and procedures, each firm should develop policies and procedures for technical reviews that are appropriate for its practice. For example, many firms require these technical reviews only for certain types of engagements, such as audits of clients who operate in high-risk industries, and special reporting situations, such as modified auditor's reports. The authors recommend that firms carefully identify the situations in which an independent technical review is required and identify the firm personnel who have the qualifications and authority to perform such reviews.

8.718 Included in section 8.908 is a Technical Review Checklist that can be used to document technical reviews of reports, financial statements and, if necessary, the engagement working papers. Requirements for completion of this Checklist should interface with each firm's quality control policies and procedures for technical reviews.

8.800 CONSULTATION ON ENGAGEMENTS, PERFORMANCE APPRAISALS, AND FINAL TIME SUMMARIZATION

Consultation on Engagements

8.801 An important part of ensuring that firms provide high-quality engagements is encouraging staff to seek assistance when needed from the appropriate individuals. They should also be advised of the individuals within or outside the firm designated as specialists in construction contractors and other relevant areas.

8.802 SQCS No. 1 (QC 10.07) states:

> Policies and procedures for consultation should be established to provide the firm with reasonable assurance that personnel will seek assistance, to the extent required, from persons having appropriate levels of knowledge, competence, judgment, and authority. The nature of the arrangements for consultation will depend on a number of factors, including the size of the firm and the level of knowledge, competence, and judgment possessed by the persons performing the work.

8.803 All firms that are members of the AICPA Division for CPA Firms are obligated to follow the quality control standards. However, all AICPA members could be called upon to justify departures from these standards. As a result, every firm should establish and maintain a quality control system appropriate for its particular operational and organizational structure.

8.804 The following are three basic objectives (found in QC 90.14) for consultation that a firm should consider in developing its policies and procedures:

1. Identify areas and specialized situations where consultation is required, and encourage personnel to consult with or use authoritative sources on other complex or unusual matters.

2. Designate individuals as specialists to serve as authoritative sources, and define their authority in consultative situations. Provide procedures for resolving differences of opinion between engagement personnel and specialists.

3. Specify the extent of documentation to be provided for the results of consultation in those areas and specialized situations where consultation is required. Specify documentation, as appropriate, for other consultations.

8.805 Each firm should carefully design quality control policies and procedures over consultation that fit its unique operating and organizational characteristics. These policies and procedures should be communicated to all professional staff, preferably in a written quality control document, so that they are aware of the situations that require consultation and of the individuals from whom they should seek advice or assistance.

8.806 Examples of situations that may require consultation include:

- Going-concern problems.
- Identification of errors, irregularities and illegal acts.
- Information that raises doubt about management's integrity.
- Unresolved disagreements among engagement personnel.

8.807 All consultations should be documented in a memorandum to the working papers that includes a description of the issue, relevant authoritative literature, and the resolution. The memo should be signed by the individual who prepared the memo, the consultant or specialist, and the engagement partner. The Consultation Form in section 8.909 is provided to document such consultations.

Performance Appraisals

8.808 Performance appraisals should be completed by the in-charge for all staff working on an engagement. Similarly, the engagement partner should perform an appraisal for the in-charge. To achieve maximum benefits from these feedback mechanisms, appraisal forms should be prepared and reviewed with the staff immediately after the engagement's completion.

Final Time Summarization

8.809 The in-charge is responsible for the final time summarization, its reconciliation to client time charges in the firm's billing records, and its final comparison to budget. Reasons for budget overruns should be documented. Suggestions for next year's possible time savings should also be included. These documents should be discussed with the engagement partner prior to preparing the final client billing.

Finally, a tentative budget should be prepared for next year's engagement. Chapter 4, "Pre-Engagement Considerations and Audit Planning," includes budget and time control forms to collect the engagement staff's time and suggestions for modifying procedures on the next year's engagement.

Documentation

8.900 DOCUMENTATION ASSISTANCE

8.901 LAWYER'S LETTER CLIENT HAS PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS*

[Client's Letterhead]

[Date]

____
____
____

In connection with an audit of our financial statements as of ____________ [balance-sheet date], we have prepared, and furnished to our auditors, ____ [name and address of auditors], a description and evaluation of certain contingencies, including those set forth below involving matters with respect to which you have been engaged and to which you have devoted substantive attention on behalf of the Company in the form of legal consultation or representation. These contingencies are regarded by management of the Company as material for this purpose [management may indicate a materiality limit if an understanding has been reached with the auditor]. Your response should include matters that existed at _______________ [balance-sheet date] and during the period from that date to the date of your response.

Please furnish to our auditors such explanation, if any, that you consider necessary to supplement the foregoing information, including an explanation of those matters as to which your views may differ from those stated and an identification of the omission of any pending or threatened litigation, claims, and assessments or a statement that the list of such matters is complete.

1. Pending or Threatened Litigation, Claims, and Assessments (excluding unasserted claims and assessments):

   [Ordinarily the information would include the following: (1) the nature of the litigation, (2) the progress of the case to date, (3) how management is responding or intends to respond to the litigation (for example, to contest the case vigorously or to seek an out-of-court settlement), and (4) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss.]

2. Unasserted Claims and Assessments (considered by management to be probable of assertion, and that, if asserted, would have at least a reasonable possibility of an unfavorable outcome):

   [Ordinarily management's information would include the following: (1) the nature of the matter, (2) how management intends to respond if the claim is asserted, and (3) an evaluation of the likelihood of an unfavorable outcome and estimate, if one can be made, of the amount or range of potential loss.]

LAWYER'S LETTER
CLIENT HAS PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS*
(Continued)

We understand that whenever, in the course of performing legal services for us with respect to a matter recognized to involve an unasserted possible claim or assessment that may call for financial statement disclosure, if you have formed a professional conclusion that we should disclose or consider disclosure concerning such possible claim or assessment, as a matter of professional responsibility to us, you will so advise us and will consult with us concerning the question of such disclosure and the applicable requirements of Statement of Financial Accounting Standards No. 5. Please specifically confirm to our auditors that our understanding is correct.

3. Any amount due you for services and expenses itemized by nature of service.

    [The auditor may request the client to inquire about additional matters, for example, specified information on certain contractually assumed obligations of the Company, such as guarantees of indebtedness of others.]

Please specifically identify the nature of and reasons for any limitation on your response.

Your response should include matters that existed as of ____________ [balance-sheet date] and during the period from that date to ____________ [two weeks before expected end of field work]. Our auditors would appreciate receiving your reply by ____________ [expected end of field work].

Very truly yours,

____

[Client's Authorized Signature]

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* If a client has not needed to retain legal counsel, the auditor may express an unqualified opinion on the financial statements even though he or she has not obtained a letter from legal counsel of the Company. In these circumstances, the auditor should obtain written representation from the Company that legal counsel has not been retained for matters concerning business operations that may involve current or prospective litigation, claims, and assessments. (see AICPA *Technical Practice Aids*, section 8340.10).

8.902 LAWYER'S LETTER
CLIENT HAS NOT PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS

[Client's Letterhead]

[Date]

____
____
____

In connection with an audit of our financial statements as of ____________ [balance-sheet date], please furnish our auditors, ____ [name and address of auditors], with the information requested below for which you have been engaged to provide legal consultation or representation. Your response should include matters that existed as of ____________ [balance-sheet date] and occurred during the period from that date to the date of your response.

1. Pending or threatened litigation, claims, and assessments (excluding unasserted claims and assessments):

   Please furnish a list of all pending or threatened litigation, claims, and assessments your firm is handling on our behalf, including the following: (1) the nature of the matter (including the amount of monetary or other damages sought); (2) progress of the matter to date; (3) how management is responding or intends to respond to the matter; for example, to contest the case vigorously or to seek an out-of-court settlement; and (4) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss and whether covered by insurance.

2. Unasserted claims and assessments:

   We understand that as a matter of professional responsibility in the course of performing legal services for us concerning possible unasserted claims or assessments that may call for financial statement disclosure, you will advise when we should consider disclosing such possible claims or assessments in accordance with Statement of Financial Accounting Standards No. 5. Please specifically confirm to our auditors that our understanding is correct.

   We have represented to ______________________ [name of auditors] that there are no unasserted claims, unless specifically identified in this letter, that you have advised us are probable of assertion and must be disclosed in accordance with Statement of Financial Accounting Standards No. 5.

   [If unasserted claims exist, management's listed information should include the following: (1) the nature of the matter; (2) how management intends to respond if the claim is asserted; and (3) an evaluation of the likelihood of an unfavorable outcome and an estimate, if one can be made, of the amount or range of potential loss.]

LAWYER'S LETTER
CLIENT HAS NOT PROVIDED LIST OF PENDING OR THREATENED LITIGATION, CLAIMS, AND ASSESSMENTS
(Continued)

Please furnish our auditors any explanation you consider necessary to supplement the foregoing information, including an explanation of these matters as to which your views may differ from those stated.

3. Any amount due you for services and expenses itemized by nature of service.

Please specifically identify the nature of and reasons for any limitation on your response.

Your response should include matters that existed as of ____________ [balance-sheet date] and during the period from that date to ____________ [two weeks before expected end of field work]. Our auditors would appreciate receiving your reply by ____________ [expected end of field work].

Very truly yours,

____

[Client's Authorized Signature]

8.903

Subsequent Events Review Program

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS:

This program has been developed for use on all audit engagements. It is not a substitute for professional judgment.

Each step should be initialed and dated by the engagement personnel who performed the work. References to supporting workpapers should be placed in the "W/P Ref." column. Also, "N/A" should be placed in the "W/P Ref." column for any steps that are not applicable.

Procedure	Done By	Date	W/P Ref.
A. If available, review financial statements and schedules or general ledger and source journals for the period subsequent to the balance-sheet date to __________ (last day of field work).	______	______	______
B. Refer to latest reconciliations of major bank accounts and inquire into any unusual items.	______	______	______
C. Refer to latest aging of accounts receivable and compare with aging totals at the balance-sheet date. Inquire into material or troublesome accounts.	______	______	______
D. Inquire of management as to whether all environmental issues, if any, have been adequately disclosed and recorded in the financial statements.	______	______	______
E. Discuss with management and investigate the following matters for the period from the balance-sheet date to _________ (last day of field work). (Names of management should be recorded in working papers.)			

SUBSEQUENT EVENTS REVIEW PROGRAM
(Continued)

Procedure		Done By	Date	W/P Ref.
1.	Company's operations.	______	______	______
2.	Sales and profit trends of the company as compared to budget and trends in the industry.	______	______	______
3.	Subsequent bookings or cancellations of sales orders.	______	______	______
4.	Status of items accounted for at the balance-sheet date based on tentative data.	______	______	______
5.	Commitments or plans for major purchases of capital additions or material and consideration of possible losses due to price trends.	______	______	______
6.	Federal, state and local taxes—changes in law, agents' reports, deficiency assessments, etc.	______	______	______
7.	Dividends declared or paid.	______	______	______
8.	Litigation, claims, and assessments.	______	______	______
9.	Liabilities in dispute or being contested, such as customers' claims, creditors' invoices or claims, warranties, guarantees, state and local tax assessments.	______	______	______
10.	Losses of important customers, exceptional bad debt losses, or pledging of receivables.	______	______	______
11.	Changes in accounting and financial policies.	______	______	______
12.	New pension plans.	______	______	______
13.	Issuances of capital stock, new borrowings or other financing including any related dividend restrictions or other important covenants.	______	______	______
14.	Potential losses on marketable securities, carrying amounts of equity investments, receivables, inventory or other assets not already considered.	______	______	______

SUBSEQUENT EVENTS REVIEW PROGRAM
(Continued)

Procedure	Done By	Date	W/P Ref.
15. Regulatory commissions or governmental body requirements or laws that could adversely affect the organization.	______	______	______
16. Purchase or sale of major plant and equipment; destructions or abandonments of plant, etc.	______	______	______
17. Status and impact of wage negotiations in progress.	______	______	______
18. Effect of changes in management, development of substitute programs, etc.	______	______	______
19. Related-party transactions.	______	______	______
F. Read and evaluate the lawyers' responses to the letters of inquiry. (Letters should be requested from legal counsel so that replies will cover the status of litigation, etc., to a date as close as possible to the date of the auditor's report.)	______	______	______
G. Read and excerpt the available minutes of meetings of the board of directors and committees of the board. Inquire as to matters discussed at meetings for which minutes are not available and obtain a letter from management confirming the subject matters discussed and any decisions reached.	______	______	______
H. Consider adjustment of year-end financial statements or disclosure of any items resulting from the above procedures.	______	______	______
I. Consider the possible effects on financial statements and disclosures of any matters causing substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time.	______	______	______
J. Additional procedures: ______________________ ______________________ ______________________ ______________________	______	______	______

Prepared by: ______________________ Date: ______________________

Reviewed by: ______________________ Date: ______________________

8.904 SUMMARY OF POSSIBLE JOURNAL ENTRIES FORM

Summary of Possible Journal Entries Form

Client:

Financial Statement Date:

Overall materiality limit: $ ____________

Amount over which misstatements should be posted to this form: $ ____________

page ____

		BALANCE SHEET					INCOME STATEMENT			
W/P Ref	Journal Entry Debit (Credit)	Current Assets	Noncurrent Assets	Current Liabilities	Noncurrent Liabilities	Stockholders' Equity	Known misstatements	Estimated misstatements	Projected misstatements	TOTAL*
	Total effect of unrecorded misstatements from prior years									
Total Unrecorded Misstatements (Page ____)										

* Total of known, estimated and projected misstatements columns.

continued

SUMMARY OF POSSIBLE JOURNAL ENTRIES FORM (Continued)

page ____

		BALANCE SHEET					INCOME STATEMENT			
W/P Ref	Journal Entry Debit (Credit)	Current Assets	Noncurrent Assets	Current Liabilities	Noncurrent Liabilities	Stockholders' Equity	Known misstatements	Estimated misstatements	Projected misstatements	TOTAL*
	Totals from previous page									
Total Unrecorded Misstatements										†
Corresponding Financial Statement Amounts										
% of Total Unrecorded Misstatements to Corresponding Financial Statement Amounts										

Tax effect on total unrecorded misstatements (income statement)**	______
Tax effected unrecorded misstatements	______
Net income	______
% of tax effected unrecorded misstatements to net income	______

* Total of known, estimated and projected misstatements columns.

** Apply the client's effective tax rate to the total unrecorded misstatements (income statement). Subtract the tax amount from the total unrecorded misstatement amount for the tax effected amount.

Conclusion: The above misstatements do not ______ do ______ materially affect the financial statements

Prepared by: ______________________ Date: ______________
(In-charge)

Reviewed by: ______________________ Date: ______________
(Engagement Partner)

†If there are material adjustments to income statement accounts, consider redoing Step III B of the Audit Planning Memo.

8.905 CLIENT REPRESENTATION LETTER—AUDIT OF CONSTRUCTION CONTRACTOR

[Client Letterhead]

[Auditor's Report Date]

____
____
____

In connection with your audit of the financial statements of __________________ [client's name] for the year ended __________________ [financial statement date][1] for the purpose of expressing an opinion as to whether the financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows of __________________ [client's name] in conformity with generally accepted accounting principles, we confirm, to the best of our knowledge and belief, the following representations made to you during your audit:

1. We are responsible for the fair presentation in the financial statements of financial position, results of operations, and cash flows in conformity with generally accepted accounting principles.

2. We have made available to you:

   a. All financial records and related data, including contract backlog information.[2]

   b. All minutes of meetings of shareholders, directors, and committees of directors, or summaries of actions of recent meetings for which minutes have not yet been prepared.[3]

   c. Information relating to all statutes, laws, or regulations that have a direct effect on our financial statements.

3. There have been no:

   a. Irregularities involving management or employees who have significant roles in the internal control structure.[4]

   b. Irregularities involving other employees that could have a material effect on the financial statements.[4]

   c. Communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices that could have a material effect on the financial statements.[4]

4. We have no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.[4]

CLIENT REPRESENTATION LETTER—AUDIT OF CONSTRUCTION CONTRACTOR
(Continued)

5. With regard to contracts completed during the year[1] and in progress at ____________ [financial statement date]:

   a. The lists of contracts completed during the year[1] and in progress at____________ [financial statement date][5] represent a complete listing of all contract activity, and there were no unauthorized or unrecorded uses of the assets on any projects during the year.[1] Further, there were no unrecorded revenues for contract-related work during the year.[1]

   b. We use the percentage-of-completion [completed contract] method of recognizing income on all contracts in progress for financial reporting purposes.[4] We believe this to be an acceptable method in conformity with generally accepted accounting principles and construction industry practices. We believe that our estimates of costs to complete and extent of progress on all contracts in progress are reasonable and attainable.[6]

   c. Adequate provisions have been made for any losses on:

      (1) Loss contracts

      (2) Unapproved change orders, unrecorded claims, or contract postponements or cancellations.

   d. The backlog information presented in the financial statements is supported by executed contracts and represents projects that will be performed under substantially the same terms as those presented in the financial statements.[2]

   e. The joint venture agreements and financial statements of the ventures provided to you are complete and accurate. We have properly accounted for all joint venture arrangements that existed throughout the year.[1,2]

6. The following have been properly recorded or disclosed in the financial statements:

   a. Related-party transactions and related amounts receivable or payable, including contract revenues and billings, sales, purchases, loans, transfers, leasing arrangements, guarantees, and joint venture participations.

   b. Capital stock repurchase options or agreements or capital stock reserved for options, warrants, conversions, or other requirements.

   c. Arrangements with financial institutions involving compensating balances or other arrangements involving restrictions on cash balances and line of credit or similar arrangements.

   d. Agreements to repurchase assets previously sold.

CLIENT REPRESENTATION LETTER—AUDIT OF CONSTRUCTION CONTRACTOR
(Continued)

e. Security agreements under the Uniform Commercial Code.

f. Contractual obligations for purchases of assets.

g. Assignments of specific assets to creditors or sureties as consideration for extensions of credit or surety.

h. Liens, encumbrances, or subordination of assets pledged as collateral in any way.

i. Subordination of any liabilities.

j. All lease or rental obligations under long-term leases.

7. There are no:

   a. Violations or possible violations of laws or regulations whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency.[4]

   b. Other material liabilities or gain or loss contingencies that are required to be accrued or disclosed by Statement of Financial Accounting Standards (SFAS) No. 5.[4]

   c. Estimates subject to material change in the near term or concentrations that make the entity vulnerable to risk of severe impact in the near term that are to be disclosed in accordance with SOP 94-6.

8. There are no unasserted claims or assessments that are required to be disclosed or that our lawyer has advised us are probable of assertion and must be disclosed in accordance with SFAS No. 5.[4]

9. There are no material transactions that have not been properly recorded in the accounting records underlying the financial statements.[4]

10. Provision, when material, has been made to:

    a. Reduce excess or obsolete inventories to their estimated net realizable value.[2]

    b. Reduce all investments for permanent decline in value.[2]

    c. Recognize anticipated losses on contracts when they become known.

11. We have satisfactory title to all owned assets, and there are no liens or encumbrances on such assets, nor have any assets been pledged.[4]

CLIENT REPRESENTATION LETTER—AUDIT OF CONSTRUCTION CONTRACTOR
(Continued)

12. Provision has been made for any material loss to be sustained from:

    a. The fulfillment of, or from the inability to fulfill, any contract commitments.

    b. Purchase commitments for inventory quantities in excess of normal requirements or at prices in excess of the prevailing market prices.

13. We have complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.

14. We believe that all accounting estimates that could be material to the financial statements, including the underlying key factors and significant assumptions, have been identified and are reasonable in the circumstances.

15. No events have occurred subsequent to the balance-sheet date that would require adjustment to, or disclosure in, the financial statements.[4]

Very truly yours,

____

[Chief Executive Officer]

____

[Chief Financial Officer]

---

[1] If the financial statements are for a period other than one year, change "year ended_____" to the appropriate period, such as "seven months ended July 31, 19XX." Change subsequent references from "the year" to "the period."

[2] Modify or delete this item as appropriate. For example, if backlog information is not presented, delete "including contract backlog information" in item 2.a. and delete item 5.d.

[3] Consider including a list of all meetings for which minutes or summaries were made available.

[4] If appropriate, add "except as disclosed in the financial statements."

[5] It is generally more convenient to include this information in a separate schedule. However, if the schedule is short, consider including it in the client representation letter.

[6] Modify if there are estimates subject to material change in the near term or concentrations that make the entity vulnerable to risk of severe impact in the near term.

8.906 SAMPLE COMMUNICATION OF INTERNAL CONTROL MATTERS

(CPA Firm Letterhead)

April 1, 19X2

To the Board of Directors
ABC Construction Contractor
123 Fourth Street
Anytown, USA 56789

In planning and performing our audit of the financial statements of ABC Construction Contractor for the year ended December 31, 19X1, we considered its internal control structure in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control structure. However, we noted certain matters involving the internal control structure and its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control structure that, in our judgment, could adversely affect the Company's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements.

Accounting Controls

1. Due to recent reductions in your accounting staff, the same two individuals, the controller and accounting clerk, have almost entire control over cash disbursement and bank reconciliation functions. Although you, as the owner of the company, retain absolute check-signing authority, no controls exist to detect unauthorized check-signing. We suggest that you institute a policy whereby all monthly bank statements received by your company are delivered unopened directly to you. You should then review all canceled checks returned with the statements for unauthorized signatures or unusual payees.

2. There is insufficient staff in your accounting department to provide for adequate segregation of duties over the payroll function. As a result, one individual, the payroll clerk, is entirely responsible for all functions included in the payroll accounting cycle. Although you have a policy that all time sheets must be approved by a job supervisor or the office manager, no controls exist to prevent the issuance of a payroll check to a fictitious employee. We suggest you institute a policy whereby each job supervisor and the office manager approves time sheets prior to processing as well as a payroll distribution report before payroll checks are issued. Additionally, someone other than the payroll clerk should be responsible for agreeing the total of the actual checks to the total of the payroll distribution report. A further improvement to the system would be for you to, periodically distribute payroll checks.

3. The same individual who maintains the subsidiary accounts receivable ledger opens the mail, posts cash receipts to the general ledger, and makes the daily bank deposit. We suggest that an employee who is not a part of the accounting department (possibly the receptionist) open the mail, prepare the deposit slip, and keep a log of all amounts received. The accounts receivable clerk and the person who reconciles the cash account should each receive a copy of the cash receipts logs for posting to the general ledger and for performing monthly bank reconciliations.

Shareholder Notes

Not all of the notes supporting the loans from the owners to the Company reflect the current outstanding balances and the current interest rates being paid.

In the event of an audit, the Internal Revenue Service could either (1) impute interest, which would be taxable income to the owner, if the notes state a higher interest rate than what is currently paid, or (2) reclassify the loans as contributed capital and, thus, payments would be considered taxable income to the owner.

We recommend that the notes between the owner and the Company be updated to reflect amounts presently due the owners and the current interest rate being paid. These notes should be revised any time there is a change in the loan balance or interest rate.

Capitalization Policy

A $XXX minimum capitalization policy was adopted for 19X1. As a result, low dollar value assets are being capitalized, and additional time and effort is needed to maintain and compute depreciation on these numerous small items that are capitalized. Further, this capitalization policy could result in an increase in your personal property tax assessment.

We recommended, and management decided to implement, a $YYY minimum capitalization policy. This increase will accelerate your tax deductions, decrease your personal property tax liability, and reduce the time spent on accounting for fixed assets.

Debt Restructuring

The new computer system is being financed over five years, at an annual interest rate of XX% through Pocket-Byte Company.

The interest rate the Company is paying is in excess of current lending rates.

We recommend that the Company consider refinancing the computer system to take advantage of more favorable interest rates. Refinancing at Y% could save the Company approximately $XX,XXX in interest over the next four years. Additionally, the monthly payment would be decreased by approximately $XXX.

We further recommend that all financing agreements involving balances over $XX,XXX be reviewed at least annually, by your staff or our firm, for possible refinancing at more favorable terms.

SAMPLE COMMUNICATION OF INTERNAL CONTROL MATTERS
(Continued)

Vendors' Debit Balances

In the December 31, 19X1 accounts payable listing, there were numerous vendor amounts that had debit balances.

As a result, the Company has refunds and/or credits receivable from vendors of approximately $XX,XXX.

We recommend that the Company adopt a policy of reviewing accounts payable on a timely basis for vendors with debit balances, and either requesting a refund or using these vendors until the debit balances are absorbed.

Purchasing Practices

Current practices provide that numerous Company personnel have the ability to initiate purchase orders committing the Company to purchases. We recommend that such practice be modified whereby processing of all prepared purchase orders and purchasing requests is centralized and all purchase orders and purchasing requests are approved by department management personnel. This practice would assist the Company in monitoring more effectively its outstanding financial commitments and minimize excess purchases or the potential for purchasing improprieties.

If none of the reportable conditions noted above is deemed to be a material weakness, the following two paragraphs may be inserted:

A material weakness is a reportable condition in which the design or operation of one or more of the internal control structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses as defined above. However, none of the reportable conditions described above is believed to be a material weakness.]

This report is intended solely for the information and use of the board of directors [and/or audit committee, or owners in owner-managed enterprises], management, and others within the Company [and/or other specified third party.]

[Firm signature]

8.907

Engagement Performance Review Checklist

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS:

This checklist documents the in-charge and engagement partner review responsibilities, as required by the firm's quality control policies and procedures.

Part I of the checklist should be completed by the in-charge or engagement partner at the completion of the engagement. Part II should be completed by the engagement partner.

Part I	Yes	No	See Additional Comments
Administrative Considerations:			
1. Have all required engagement programs, forms, and checklists been completed, signed, and dated?	____	____	____
2. Have all working papers been reviewed for:			
a. Initials and dates of preparation and review?	____	____	____
b. Proper format, i.e., headings, tickmark explanations, indexing and cross-referencing?	____	____	____
c. Footing and testing of schedules prepared by client?	____	____	____
d. Posting of adjustments and cross-referencing to trial balance?	____	____	____
e. Agreeing beginning balances to prior year's working papers?	____	____	____
3. Do financial statements agree with the trial balance?	____	____	____

ENGAGEMENT PERFORMANCE REVIEW CHECKLIST
(Continued)

	Yes	No	See Additional Comments
4. Has the Time Summary Form been completed, and significant variances between budget and actual been explained?			
5. Have the following letters been obtained and reviewed for proper dating and propriety?			
a. Management representations (dated as of the auditor's report date).*			
b. Lawyers' letters (dated within two weeks of the auditor's report date).			
Other Considerations:			
1. Have you reviewed all work done by assistants and cleared all review points?			
2. Does the work performed accomplish the objectives of the engagement?			
3. Do the conclusions in the working papers support the type of report issued?			
4. Are you satisfied there are no material errors, irregularities, or illegal acts?			
5. Has the engagement been completed in accordance with firm policy and authoritative standards?			
6. Have all problems been adequately resolved?			
7. If a situation has been encountered that impairs the firm's independence, has a disclaimer of opinion been issued for public companies or a step-down to a compilation with lack of independence noted for nonpublic companies?			

* Statement on Standards for Accounting and Review Services (SSARS) No. 7 requires accountants to obtain a management representations letter on engagements to review the financial statements of nonpublic companies.

ENGAGEMENT PERFORMANCE REVIEW CHECKLIST
(Continued)

	Yes	No	See Additional Comments
8. Were any transactions or events encountered that, according to the firm's policy, require consultation?	______	______	________
• If yes, was consultation obtained and properly documented?	______	______	________
• If applicable, were the resolutions of differences of opinion among engagement personnel documented?	______	______	________
9. Has the Subsequent Events Review Program been completed?	______	______	________
10. Have all communications been made as required by SAS Nos. 53, 54, and 60 for:			
a. Internal control structure related matters?	______	______	________
b. Irregularities?	______	______	________
c. Illegal acts?	______	______	________
11. If the entity has an audit committee or other formally designated group responsible for oversight of the financial reporting process, have the other matters required by SAS No. 61 been communicated?	______	______	________

12. Additional comments:

____

____

____

Prepared by: ______________________________ Date: ____________________
(In-charge)

Reviewed by: ______________________________ Date: ____________________
(Engagement Partner)

ENGAGEMENT PERFORMANCE REVIEW CHECKLIST
(Continued)

	Yes	No	See Additional Comments
Part II (To be completed by engagement partner)			Initials
1. I have reviewed the engagement working papers, work programs, checklists, etc. to the extent required by firm policy.			________
2. I have reviewed the financial statements for appropriate form and conformity with professional standards.			________
3. I have reviewed the independent auditor's (accountant's) report for conformity with professional standards, and have determined that the conclusions reached in the working papers support our report.			________
4. I authorize issuance of the financial statements and the report.			________

Prepared by: ______________________________ Date: ______________________
(Engagement Partner)

8.908

Technical Review Checklist

Client: ____________________

Financial Statement Date: ____________________

Technical Reviewer: ____________________ Date: ____________________

INSTRUCTIONS:

This checklist should be completed by the technical reviewer on those engagements in which a technical review is required by the firm's quality control policies and procedures.

Initials

1. Review the financial statements for appropriate form and content. Consider the appropriateness of:

   a. Titles.

   b. Captions.

   c. Classifications within captions.

   d. Descriptions.

   e. Reference to auditor's (accountant's) report and financial statement notes. ________

2. Compare the Financial Statement and Notes Checklist to the notes to the financial statements. Consider whether the notes are complete and worded appropriately. ________

3. Review the financial statements for any obvious departures from GAAP or OCBOA. ________

4. Read the auditor's (accountant's) report for appropriateness and conformity with professional standards. ________

5. If applicable, review the engagement checklists:

   a. To determine that they support the conclusions reached in the engagement. ________

   b. For potential problems. ________

6. Describe any problems noted and the way they were resolved. ________

   ____
   ____
   ____

8.909

Consultation Form

Client: ______________________

Financial Statement Date: ______________________

Instructions — This Form should be completed by the engagement personnel for situations that require consultation under the firm's quality control system. The consultant and engagement partner should sign the Form to indicate their agreement with the resolution. Any disagreements between engagement personnel and the consultant should be resolved by the firm's managing partner.

Brief Summary of Issue

____

____

____

Important Facts

____

____

____

____

____

Resolution

____

____

____

____

____

Consultant Signature: ______________________ Date: ______________________

Prepared by: ______________________ Date: ______________________
(Engagement Staff)

Reviewed by: ______________________ Date: ______________________
(Engagement Partner)

8.910

Tax Accrual/Provision Review Checklist

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS:

This checklist documents completion of the engagement partner's and tax partner's responsibilities for reviewing and approving the income tax accruals and provision. It should be prepared by the tax partner and approved by the engagement partner at the completion of the engagement.

	Done By	Date
1. Review current file working trial balances, possible journal entries, adjusting journal entries, eliminating journal entries, memoranda, post-balance-sheet review sections, legal letters, minutes, etc.	______	______
2. Review current file assets schedules, such as allowance for doubtful accounts, construction in process, inventory (including all LIFO calculations, if applicable), prepaid items, deferred charges, plant and equipment (depreciation methods, recapture, etc.).	______	______
3. Review current file liabilities and equity schedules, such as notes payable to officers or shareholders, accrued liabilities, deferred credits, capital stock, retained earnings, paid-in capital, etc.	______	______
4. Review operations files, such as revenues, costs of revenues, general and administrative expenses, marketing expenses, and other income and expense.	______	______
5. Review the calculations performed to determine the deferred tax asset and/or liability, including the schedule of temporary differences, net operating loss carryforwards and carrybacks, tax credits, the tax rate used and, if applicable, the deferred tax asset valuation allowance.	______	______
6. Review and initial all tax provision/accrual working papers, tax memoranda, LIFO calculations (if applicable), and the following (please list): ______________________________ ______________________________ ______________________________	______	______

TAX ACCRUAL/PROVISION REVIEW CHECKLIST
(Continued)

	Done By	Date
7. Review tax-related notes to financial statements and other tax-related financial statement items.	______	______
8. Review firm's tax return preparation checklist.	______	______
9. Review Contractors' Supplement to Tax Return Preparation Checklist.	______	______
10. In my opinion, the tax provision and accruals set forth in the working paper schedules, the financial statements, and the related disclosures are reasonable and adequate.	______	______

Tax Partner's Signature: ______________________ Date: __________

Engagement Partner's Signature: ______________________ Date: __________

8.911

Contractors' Supplement to Tax Return Preparation Checklist

Client: ______________________________

Tax Return Date: ______________________________

INSTRUCTIONS:

This checklist documents completion of the engagement partner's and the tax partner's responsibilities for approving the income tax return preparation. It should be prepared by the tax partner and approved by the engagement partner.

	Yes	No	N/A
1. Is the percentage of completion (cost on cost) method of accounting used for tax purposes, except for:			
a. Contracts for home construction entered into after September 30, 1990?	___	___	___
b. Manufacturing contracts that are expected to be completed within 12 months and are not for the manufacture of unique items?	___	___	___
c. Construction (nonmanufacturing) contracts for contractors that are exempt from the requirements of Code Section 460 (e.g., contractors with contracts that are expected to be completed within two years and whose average annual gross receipts for each of the three preceding taxable years does not exceed $10 million)?	___	___	___
2. If the contractor meets the requirements for the small construction contractors' exemption, but does not have home construction contracts:			
a. Have the cost-capitalization and allocation rules of Reg. Section 1.451-3(d)(5) been applied?	___	___	___
b. Has production period interest been capitalized and allocated to contracts in accordance with Code Section 263A?	___	___	___
3. If the contractor uses the cash basis of accounting for tax purposes, have the requirements of Code Section 448 (i.e., a C corporation with $5 million or less in gross receipts) and Sections 471 and 446 (i.e., no substantial inventories) been met?	___	___	___

CONTRACTORS' SUPPLEMENT TO TAX RETURN PREPARATION CHECKLIST
(Continued)

	Yes	No	N/A
4. For purposes of the alternative minimum tax (AMT) computation, has the percentage-of-completion method of accounting been used unless:			
a. The contractor meets the small contractors' exemption [Code Section 460(e)] and has home construction contracts, or	___	___	___
b. The contractor that does not meet the small contractors' exemption has home construction contracts entered into after September 30, 1990?	___	___	___
5. For home construction contracts of contractors that do not meet the small construction contractors' exemption [Code Section 460(e)] are the cost capitalization and allocation rules of Code Section 263A met?	___	___	___
6. If the percentage-of-completion method is elected for tax purposes:			
a. Have costs been properly capitalized and allocated to contracts [Code Section 460(c)]?	___	___	___
b. Has production period interest been capitalized [Code Section 263A(f)]?	___	___	___
c. Has the look-back computation been made?	___	___	___

Prepared by: ______________________ Date: ______________
(Tax Executive)

Reviewed by: ______________________ Date: ______________
(Engagement Partner)

Sample Reports and
Financial Statements

CHAPTER 9

ILLUSTRATIVE AUDITOR'S REPORTS AND FINANCIAL STATEMENTS

Table of Contents

CHAPTER 9

ILLUSTRATIVE AUDITOR'S REPORTS AND FINANCIAL STATEMENTS

Table of Contents (Continued)

Table of Contents (Continued)

CHAPTER 9

ILLUSTRATIVE AUDITOR'S REPORTS AND FINANCIAL STATEMENTS

Table of Contents (Continued)

CHAPTER 9

ILLUSTRATIVE AUDITOR'S REPORTS AND FINANCIAL STATEMENTS

Table of Contents (Continued)

CHAPTER 9

ILLUSTRATIVE AUDITOR'S REPORTS AND FINANCIAL STATEMENTS

9.000 INTRODUCTION

9.001 This chapter provides guidance for preparing or reviewing the financial statements and notes and in drafting the appropriate auditor's report. Included in this chapter are:

- Discussion of various reporting situations and recommendations on formatting auditor's reports
- Examples of auditor's reports
- Sample financial statements
- Financial statement disclosure checklists, including a small business checklist, a supplemental construction contractor checklist, as well as a checklist for the auditor's report
- Procedures for drafting and approving issuance of reports and financial statements
- Financial Statement Control Form

Drafting and Approving Issuance of Reports and Financial Statements

9.002 Auditors should establish policies and procedures that would define responsibility regarding the preparation and review of the financial statements and the notes to the financial statements and preparation of the auditor's report. The Financial Statement Control Form, located in section 9.900, will help the auditor document compliance with the firm's policies regarding the review process. It should be completed beginning with the initial draft of the report submitted for typing, and should be signed by all individuals performing the required procedures. It also documents the engagement partner's final approval to release the report to the client.

9.003 Firms should also identify situations when the auditor's report, financial statements, and engagement working papers should be reviewed by someone not associated with the engagement. This review is discussed in Chapter 8, sections 8.716-8.718, and is documented on the Technical Review Checklist in section 8.908.

9.100 REPORTING ON AUDITED FINANCIAL STATEMENTS

Association With Financial Statements

9.101 Auditors are associated with financial statements when—

- They consent to the use of their name in documents containing financial statements.
- They submit financial statements they prepared or assisted in preparing to clients or others, even though the firm's name is not included with the statements.

9.102 It is important to note that this definition applies to situations in which the auditor has been engaged to *audit* the financial statements. It does not apply to compilation and review engagements.

Report Preparation

9.103 Firms should develop standard policies and procedures for preparing and issuing reports. The following are some suggested report preparation policies:

- *Letterhead.* The report should be presented on firm letterhead.
- *Addressee.* The report should be addressed to the management, stockholders, partners, general partner, proprietor, or to the company whose financial statements are being audited. If the firm was engaged by others, the report should be addressed thereto.

  The Management of
  XYZ Company, Inc.
  City, State

  The Stockholders and Board of Directors
  XYZ Company, Inc.
  City, State

- *Salutation.* A salutation should not be included on the report.
- *Report Signing.* The firm name should be manually signed by the engagement partner after completing the Financial Statement Control Form in section 9.900. The words *Certified Public Accountant(s)* should be excluded from the signature if they are a normal part of the firm's letterhead.
- *Report Dating.* Audit reports should be dated as of the last day of field work. The date should be presented at the bottom of the page along with the city and state, if not included in the firm letterhead, as follows:

  City, State
  April 5, 19Y

If significant subsequent events are discovered before the report is issued, but after the completion of field work, the report should be dual-dated for the subsequent events. Subsequent events affecting previously issued reports that are being reissued will also cause the report to be dual-dated. The following illustrates dual-dating:

City, State
February 26, 19Y, except for Note X as to which the date is April 5, 19Y

- *Level of Service.* The type of report to be issued and the level of service to be performed should be outlined in the engagement letter. The letter should be revised for any significant changes from the original understanding with the client, such as a step-up or step-down in the level of service.

  The engagement partner should approve any step-up or step-down in the level of service. A step-up in the level of service may occur after a revised understanding with the client. A step-down in the level of service should occur only after carefully evaluating the reasons for the change. The reasons for the change may also affect the report at a lower level of service. Limitations in the scope of an audit, for example, may preclude issuing a review or compilation report.

  If more than one level of service is performed for financial statements of the same period — for example, compilation and audit — the financial statements need only be accompanied by the report on the highest level of service performed.

Reports on Audited Financial Statements

9.104 Generally accepted auditing standards (GAAS) establish reporting responsibilities. The four standards of reporting stated in AICPA Statement on Auditing Standards (SAS) No. 1, *Codification of Auditing Standards and Procedures* (AU 150.02), are—

1. The report shall state whether the financial statements are presented in accordance with GAAP.
2. The report shall identify those circumstances in which GAAP has not been consistently applied in the current period in relation to the preceding period.
3. Informative disclosures in the financial statements are to be regarded as reasonably adequate unless otherwise stated in the report.
4. The report shall contain either an expression of opinion regarding the financial statements taken as a whole, or a statement that an opinion cannot be expressed. When an opinion cannot be expressed, the reasons should be stated. In all cases, the report should contain a clear-cut indication of the degree of responsibility, if any, the auditor is taking.

Standard Report

9.105 The standard auditor's report prescribed by SAS No. 58, *Reports on Audited Financial Statements* (AU 508), should be used when the auditor has formed an opinion, based on the application of GAAS, that the financial statements present fairly, in all material respects, an entity's financial position, results of operations, and cash flows in accordance with GAAP. It should address all financial statements presented. Standard auditor's reports for presentations of single-year and comparative financial statements are illustrated in sections 9.601 and 9.602, respectively.

Modifications of the Standard Auditor's Report

9.106 In addition to the standard auditor's reports, SAS No. 58[1] describes situations that may require auditors to modify the standard report, and also provides illustrations of the appropriate modifying language. These modifications, which are discussed in greater depth in the following sections, are—

1. *Explanatory Language.* A wide variety of situations may arise that require a modification of the standard auditor's report that do not affect the expression of an unqualified opinion. Some of the more common of such situations are uncertainties, going-concern problems, the auditing of part of the financial statements by another auditor, or a significant change in accounting principles. The explanatory paragraph for situations that do not affect the auditor's opinion should be placed after the opinion paragraph.

2. *Qualified Opinion.* Qualified opinions result from two general categories of situations: scope limitations and departures from GAAP. A scope limitation arises when the auditor has been unable to perform all of the auditing procedures he or she believes are necessary to express an unqualified opinion on the financial statements. Financial statements containing a material departure from GAAP, including inadequate disclosures in the financial statements, may lead the auditor to qualify his or her opinion. Both situations require that an explanatory paragraph, preceding the opinion paragraph, be included that describes the nature of the scope limitation or the departure from GAAP.

3. *Disclaimer of Opinion.* A disclaimer of opinion may be required when—

   - The scope of the audit has been restricted so significantly that the auditor does not have a basis for forming an opinion on the financial statements. If the auditor issues a disclaimer of opinion on the financial statements due to a scope limitation, the report should indicate, in a separate explanatory paragraph, why the audit did not comply with generally accepted auditing standards. Also, any reservations regarding the fair presentation of the financial statements in conformity with GAAP should be disclosed.

[1] As discussed in Chapter 1, Section 1.336, at press time, the AICPA Auditing Standards Board has released an exposure draft of a proposed amendment to SAS No. 58 that would eliminate the requirement to include an explanatory paragraph in the auditor's report for certain uncertainties.

- The auditor is not independent. Whenever the auditor is not independent with respect to a public entity whose financial statements have been audited, a disclaimer of opinion should be issued. For nonpublic entities, the firm should issue a compilation report that includes a statement that the firm is not independent. An illustration of a disclaimer of opinion due to a lack of independence is provided in section 9.626.

- The auditor is associated with the unaudited financial statements of an entity that he or she has not audited or reviewed. If the auditor is associated with financial statements that have not been reviewed or audited, the report should state that an audit or review has not been performed and address the accompanying financial statements.

4. *Adverse Opinion.* An adverse opinion should be expressed on financial statements that do not present fairly the entity's financial position, results of operations, or cash flows in conformity with GAAP. In other words, the auditor concludes that the financial statements are *not* fairly presented in accordance with GAAP. Issuance of an adverse opinion requires inclusion of an explanatory paragraph, preceding the opinion paragraph, that explains all of the reasons for the adverse opinion and, if practicable, the effects of the subject matter of the adverse opinion on the financial statements.

Audit Reporting Summary

9.107 The following summarizes common situations that may result in a report modification of the standard auditor's report, as well as the type of report modification, if any, that should be made.

Audit Reporting Summary

Situation	Type of Modification
Scope Limitations	
Auditor is unable to perform all necessary auditing procedures (section 9.603)	Qualified opinion
Auditor is unable to form an opinion because of the inability to perform necessary auditing procedures (section 9.604)	Disclaimer of opinion
Uncertainties	
Going-concern problem (section 9.613)	Explanatory paragraph or disclaimer of opinion
Inadequate disclosure of uncertainty	Qualified or adverse opinion
Other uncertainties (section 9.612)	Explanatory paragraph or disclaimer of opinion

Situation	Type of Modification
Departures From GAAP	
Use of unacceptable principle that affects financial statement items but not the statements as a whole (section 9.606)	Qualified opinion
Use of an unacceptable principle that materially affects financial statements as a whole (section 9.607)	Adverse opinion
Inadequate disclosure (section 9.608)	Qualified or adverse opinion
Rule 203 departure (GAAP departure is necessary to keep financial statements from being misleading)	Explanatory paragraph preceding opinion
Financial Statements Contain Errors, Irregularities, and Illegal Acts	
Amounts cannot be determined because of restrictions by client	Qualified or disclaimer of opinion
Amounts are material and not properly disclosed	Qualified or adverse opinion
Amounts and legality of matter are uncertain	Qualified or disclaimer of opinion
Client will not accept report modification	No report should be issued
Change to an Unacceptable Principle	
Change materially affects financial statement items but not the statements as a whole (section 9.610)	Qualified opinion
Change materially affects financial statements as a whole	Adverse opinion
Client fails to provide reasonable justification for a change between alternative acceptable principles (section 9.611)	Qualified opinion
Accounting Principles Not Consistently Applied	
Consistency exception (section 9.609)	Explanatory paragraph

Situation	Type of Modification
Current period effect not material, but material future effect expected	Qualified opinion if not adequately disclosed in notes
Reporting on a Single Statement	
Balance sheet only presented (section 9.624)	Modify to refer only to balance sheet
Balance sheet audited, other statements not audited also presented (section 9.625)	Modify to report on balance sheet, disclaimer on other statements
First-year Audit by the Firm	
GAAP determined to be consistent	No modification
GAAP consistency undeterminable	Disclaimer of opinion
Beginning inventory balances not audited, GAAP determined consistent (section 9.605)	Explanatory paragraph; disclaimer on statements of earnings and cash flows
Different Level of Prior-Period Service	
Current period audited, prior period reviewed or compiled (sections 9.618 and 9.619)	Additional paragraph following opinion paragraph describing prior-period review or compilation
Current period reviewed or compiled, prior period audited	Additional paragraph describing prior-period audit
Part of Audit Performed by Other Auditors	
Principal auditor does not rely on other auditor's work (section 9.614)	Modify introductory and opinion paragraphs
Principal auditor assumes responsibility for other auditor's work	No modification
Prior-Period Audit Performed by a Predecessor	
Predecessor reissues report	No modification

Situation	Type of Modification
Predecessor does not reissue, prior period unqualified (section 9.615)	Modify introductory para graph to address predecessor's report and type of opinion
Prior period is qualified, restatement is necessary (section 9.616)	Modify introductory paragraph to address predecessor's report and type of opinion
Prior period qualified; restatement subsequently made (section 9.617)	Modify introductory paragraph to address predecessors report and restatement
Relying on the Work of Specialists	
Unable to resolve difference between specialist's findings and financial statement representations (scope limitation)	Qualified or disclaimer of opinion
Representations in Financial Statements Not in Accordance with GAAP	
Material effect on financial statement items, but not the financial statements as a whole	Qualified opinion
Material effect on the financial statements as a whole	Adverse opinion
Lack of Independence	
Nonpublic companies	Step down to compilation and disclose lack of independence
Public companies (section 9.626)	Disclaimer of opinion
Emphasis of a Matter	
Desire to emphasize a matter that does not affect an unqualified opinion (section 9.627)	Explanatory paragraph following opinion paragraph
Financial Statements Containing Supplementary Information	
Information subjected to auditing procedures (section 9.620)	Standard report on supplementary information

Situation	Type of Modification
Part of information subjected to auditing procedures (section 9.621)	Disclaimer on part of supplementary information; standard report on remainder
No procedures applied to information (section 9.622)	Disclaimer on supplementary information
Report on basic financial statements qualified for scope limitation, departure from GAAP, inconsistent GAAP or uncertainty (section 9.623)	Consider effect of qualification on supplementary information
Disclaimer of opinion on basic financial statements	Disclaimer on supplementary information
Supplementary information not presented in accordance with GAAP	Adverse opinion on supplementary information

Scope Limitations

9.108 Restrictions on the scope of an audit, whether imposed by the client or by circumstances, such as the timing of the auditor's work, the inability to obtain sufficient, competent evidential matter, or an inadequacy in the client's accounting records, may require a qualified opinion or a disclaimer of opinion. Client-imposed restrictions that significantly limit the scope of an audit ordinarily should result in a disclaimer of opinion on the financial statements. Deciding whether to qualify or disclaim is a matter of judgment, and generally the primary factor in this decision is the materiality of the financial statement items affected. However, other factors should be considered, such as the pervasiveness of the effects of the omitted auditing procedures and the nature of the financial statement items affected. Illustrated in sections 9.603 and 9.604, respectively, are a qualified opinion and a disclaimer of opinion due to a scope limitation.

9.109 **First-Year Audits.** When the firm is engaged for an initial audit, the scope of work must cover beginning balances that affect the statements of earnings and retained earnings, and the statement of cash flows. If the firm is able to satisfy itself as to the beginning balances, no mention is required in the report. If the firm cannot satisfactorily complete procedures for material beginning balances, a disclaimer of opinion will be required for the statements of earnings and retained earnings and for the statement of cash flows. (As discussed in section 9.501, often entities that have never been audited request a balance-sheet-only audit.) The firm should also perform limited procedures to determine that GAAP has been consistently applied between periods. If the inadequacy of records prevents the firm from doing so, an opinion cannot be expressed on the current year financial statements. Section 9.605 illustrates reporting language when the beginning inventory amount cannot be satisfactorily audited.

Departures From GAAP

9.110 Unacceptable Principles. Significant departures from GAAP require that the auditor issue either a qualified or an adverse opinion. Choosing between a qualified or an adverse opinion depends on the magnitude of the departure. While the materiality of the effects of the departure is a primary consideration, the auditor should also consider the pervasiveness of the departure, that is, the number of financial statement items affected, the importance of the departure to the entity's business, and the dollar effect of the departure on individual financial statement items as well as on the statements as a whole.

9.111 For both qualified and adverse opinions, an explanatory paragraph should be included, preceding the opinion paragraph, that describes all of the substantive reasons for the auditor's opinion and the effects on the financial statements, if readily determinable. If it is not practical to determine the effects of the departure, the explanatory paragraph should contain a statement to that effect. If information about the effects of the departure are described in the notes, the explanatory paragraph can be shortened by referring to the note.

9.112 Report Modification. The opinion paragraph for a qualified opinion due to a departure from GAAP should include the words *except* or *exception* and a reference to the explanatory paragraph that describes that departure. Adverse opinions should include language such as "do not present fairly" and should also include a reference to the explanatory paragraph. Illustrated in sections 9.606 and 9.607, respectively, are qualified and adverse opinions due to a departure from GAAP.

9.113 Inadequate Disclosure. Departures from GAAP include not just inappropriate application of accounting principles, but also omitted or inadequate disclosures in the financial statements including omission of the statement of cash flows. Such situations require the auditor to add an explanatory paragraph, preceding the opinion paragraph, that describes the nature of the inadequate or omitted disclosure and, if practical, the information that should have been disclosed. The significance of the omitted or inadequate disclosure will determine whether a qualified or adverse opinion is appropriate. Section 9.608 illustrates a sample qualified opinion due to inadequate disclosure.

Errors, Irregularities, and Illegal Acts

9.114 If the financial statements are materially affected by an error, irregularity, or illegal act that has not been properly accounted for and disclosed, a qualified or adverse opinion should be considered. If the auditor is precluded from applying necessary procedures or from obtaining sufficient information to conclude whether an error, irregularity, or illegal act that could be material to the financial statements has occurred, a qualified opinion or a disclaimer of opinion should be issued. All such matters should be discussed immediately with the engagement partner.

9.115 If a client will not accept modification of the report under the circumstances above, the firm should consider withdrawing from the engagement.

9.116 Failure to Apply an Authoritative Pronouncement (Rule 203 of the AICPA *Code of Professional Conduct*). A qualified or adverse opinion is required if there is a material departure from GAAP, unless conformity with GAAP would cause the financial statements to be misleading. In these rare cases, an unqualified opinion may be issued, with an explanatory paragraph that describes the departure, its approximate effects, if determinable, and the reasons why application of the principle would cause the statements to be misleading.

Consistency Exceptions

9.117 Accounting changes affecting consistency include—

- A change from one generally accepted accounting principle to another method, practice, or principle that is different from the one previously used
- A change from an unacceptable to an acceptable principle (correction of an error)
- A change in financial statement classification that significantly affects financial position or results of operations (for example, classification of an item in earnings from operations as other income or expense)
- A change in reporting entity including—
  - Consolidated or combined statements instead of individual company statements
  - Changes in the entities included in consolidated or combined statements

9.118 Accounting changes not normally affecting consistency include—

- Initial adoption of an existing accounting principle for a new event or transaction
- Insignificant reclassification
- Correction of errors not involving an accounting principle
- Changes in accounting estimates

9.119 The nature of the accounting change will determine whether prior-period financial statements should be restated or a cumulative adjustment should be included in current earnings. In either event, the change should be disclosed in the notes to the financial statements and in the auditor's report in a separate paragraph following the opinion paragraph. The auditor's concurrence with a change is implicit unless he or she takes exception to the change. The opinion paragraph would be standard unless the change is to an unacceptable principle or method, the change is not justified, or a prospective change of a principle requiring retroactive adjustment is not discussed. In such situations, either a qualified or adverse opinion should be issued. The reports in sections 9.609, 9.610, and 9.611 illustrate the appropriate reporting language for various consistency exceptions.

Uncertainties

9.120 Uncertainties are significant circumstances, events, or transactions affecting the financial statements, the outcome of which cannot be reasonably estimated. Uncertainties are a particularly complex area because they can result in a qualified or adverse opinion due to a departure from GAAP, a qualified opinion or disclaimer due to a scope limitation, or merely an explanatory paragraph that does not affect the auditor's opinion. Statement of Financial Accounting Standards (SFAS) No. 5, *Accounting for Contingencies* (CT 59), is the primary authoritative pronouncement for financial statement presentation and disclosure of uncertainties.The AICPA's SOP 94-6, *Disclosure of Certain Risks and Uncertainties,* supplements the disclosure requirements of SFAS No. 5 for contingencies and certain estimates. The AICPA Auditing Standards Division has drafted an amendment to SAS 58, *Reports on Audited Financial Statements,* that would eliminate the requirement that, when certain criteria are met, the auditor adds an uncertainties paragraph to the auditor's report.

9.121 Uncertainties Not Requiring Modification of the Opinion. Paragraph 23 of SAS No. 58 (AU 508.23) states that when the auditor has concluded that an uncertainty exists, he or she should consider whether the matter warrants disclosure in the notes to the financial statements and inclusion of an explanatory paragraph in the auditor's report. This assessment is based on the likelihood that the resolution of the uncertainty will result in a material loss. If management and the auditor believe the likelihood of a material loss is "remote," no explanatory paragraph or disclosure would be required. If the likelihood of a material loss is "probable" and, in some instances "reasonably possible,"—but no accrual is made because the amount or range of possible loss cannot be reasonably estimated—the uncertainty should be disclosed in the notes to the financial statements and the auditor should include an explanatory paragraph in the report. The explanatory paragraph should describe the uncertainty and indicate that the outcome cannot presently be determined. This paragraph may be shortened by referring to information in the notes to the financial statements. Because this situation does not result in a modified opinion, no mention should be made of the uncertainty in the introductory, scope, or opinion paragraphs of the report.

9.122 Scope Limitations. A qualified opinion or disclaimer of opinion may be required if the auditor is unable to obtain sufficient information to support management's assertions about the uncertainty. In some ways, information about uncertainties may be considered insufficient because it is dependent on future, unknown events. However, if the auditor determines that information did or does exist, but it is unavailable to him or her (for example, because the information was destroyed or management will not allow the auditor to have access to it), the auditor should consider modifying the report for a scope limitation.

9.123 Departures From GAAP. SAS No. 58, paragraph 19 (AU 508.19), describes three categories of departures from GAAP involving uncertainties:

- Inadequate disclosure
- Inappropriate accounting principles
- Unreasonable accounting estimates

9.124 As mentioned in section 9.120, SFAS No. 5 and SOP 94-6 set forth the disclosure requirements for contingencies. A qualified or adverse opinion due to a departure from GAAP may be necessary if the auditor concludes that the uncertainty has not been appropriately disclosed in accordance with SFAS No. 5.

9.125 Also, a departure from GAAP may exist if management has made inappropriate estimates of future events in applying accounting principles (such as the use of unreasonable expected lives of depreciable assets for calculating depreciation) or in making other accounting estimates.

9.126 **Resolution of the Uncertainty.** When an uncertainty has been resolved in a subsequent period, the explanatory paragraph should be removed, and any effects of the uncertainty should be recorded in the period of resolution.

9.127 An example of a report with an explanatory paragraph (following the opinion paragraph) describing an uncertainty is shown in section 9.612.

9.128 **Going-Concern Uncertainties.** SAS No. 59, *The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern* (AU 341), discusses the auditor's responsibilities for considering the entity's ability to continue as a going concern. If the auditor concludes that there is substantial doubt about the entity's ability to continue as a going concern, the situation should be described in an explanatory paragraph, following the opinion paragraph. The explanatory paragraph should describe the principal events and conditions related to the going-concern uncertainty, their possible effects on the financial statements, management's plans for corrective actions, and the auditor's conclusion that substantial doubt exists. SAS No. 64, *Omnibus Statement on Auditing Standards*, paragraph 1 (AU 341.12), imposes the additional requirement that the explanatory paragraph include the terms "substantial doubt" and "going concern." An example of a report with an explanatory paragraph for a going concern is shown in section 9.613.

9.129 If financial statement disclosures about the uncertainty are inadequate, a departure from GAAP exists, and either a qualified or adverse opinion may be necessary.

9.200 REPORT BASED ON WORK OF OTHER AUDITORS

9.201 Before deciding to use the work and reports of other auditors who have audited the financial statements of one or more subsidiaries, divisions, or components of financial statements, the auditor must first conclude that he or she is the "principal auditor." Merely auditing the parent company or the home office does not necessarily qualify the auditor as the principal auditor. The auditor should consider the materiality of the portion of the financial statements he or she has audited compared to the portion audited by other auditors, his or her knowledge of the overall financial statements, and the importance of the components audited in relation to the entity's entire business.

9.202 Once the auditor has concluded that he or she may serve as the principal auditor, the next step is to decide whether the auditor's report should refer to the other auditor's work.

Decision to Refer to Other Auditor's Work

9.203 If the auditor decides to refer to the other auditor's work, the standard auditor's report should indicate, in the introductory, scope, and opinion paragraphs, the division of responsibility. Generally this is accomplished by stating the dollar amounts or the percentages of total assets and revenues audited by the other auditor. In most cases, the other auditor is not named in the principal auditor's report.

However, if the other auditor is named, it should be done only with the other auditor's permission and the other auditor's report should be presented with the principal auditor's report. Section 9.205 describes certain procedures the auditor should follow when referring to another auditor's work.

Decision Not to Refer to Other Auditor's Work

9.204 SAS No.1 (AU 543) establishes guidance for relying on the work of the other auditors. Obviously, if the principal auditor decides not to refer to the other auditor's work or report, he or she must take responsibility for the work done by the other auditor. In addition to the procedures discussed in section 9.205, the principal auditor should also consider visiting the other auditor, discussing the procedures followed and the results, and reviewing the other auditor's audit programs and working papers.

Procedures for Both Methods

9.205 Regardless of whether the principal auditor refers to the other auditor, SAS No. 1 (AU 543) requires the principal auditor to—

- Inquire about the other auditor's professional reputation.[2]
- Obtain a written representation from the other auditor that he or she is independent.
- Ascertain through communication with the other auditor that—
  - — He or she is aware that the financial statements audited by the other auditor will be included in the financial statements to be audited by the principal auditor.
  - — He or she is familiar with U.S. GAAP and GAAS and will conduct the audit and report accordingly.[1]
  - — He or she has knowledge of the relevant financial reporting requirements for statements and schedules to be filed with regulatory agencies.[1]
  - — A review will be made of matters affecting elimination of intercompany transactions and accounts and uniformity of accounting practices.

9.206 Section 9.614 shows a reporting example appropriate for situations in which the principal auditor does not rely on the other auditor's work. Section 1.331 of Chapter 1 discusses a recently issued Auditing Interpretation that addresses the responsibilities of a successor auditor who has been asked to reaudit financial statements that another auditor previously audited.

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[2] These procedures are generally not required if the principal auditor already knows of the other auditor's reputation and the other auditor's primary place of practice is the U.S.

9.300 REPORTING ON COMPARATIVE FINANCIAL STATEMENTS

Prior-Period Audit Performed by Predecessor

9.301 When prior periods have been audited by a predecessor auditor, the predecessor may reissue his or her report with the comparative financial statements. A predecessor's reissuance requires that he or she read the current comparative financial statements, inquire of the continuing auditor concerning facts that may affect the prior-period report, and obtain a representation letter from the continuing auditor concerning any relevant information affecting the prior-period financial statements.

9.302 If the predecessor declines to reissue his or her report, the successor may report on the current-period financial statements and refer to the predecessor's report on the prior-period statements. Sections 9.615, 9.616, and 9.617 illustrate such reports.

Reporting on Audited and Unaudited Financial Statements in Comparative Form

9.303 When audited financial statements are presented in comparative form with prior-period financial statements of a nonpublic entity that were compiled or reviewed, the auditor should either (1) reissue the compilation or review report or (2) include a separate paragraph in the current year's report that describes his or her responsibility for the prior-period financial statements. Reissuing the prior-period compilation or review report requires that the auditor present the prior-period report in its entirety, using the original report date. Regardless of which alternative is chosen, the auditor should consider whether the prior-period compilation or review report is still appropriate in light of information he or she becomes aware of during the current year's audit.

9.304 As a practical matter, it is generally easier to add the separate paragraph to the current year's auditor's report. This paragraph should include—

- A statement of the service performed in the prior period.
- The date of the prior-period report.
- A description of any modifications of the report.
- A statement that the service was less in scope than an audit and does not provide a basis for expressing an opinion on the financial statements taken as a whole.

9.305 Sections 9.618 and 9.619 illustrate examples of reports on comparative financial statements with the current period audited and the prior period compiled or reviewed.

9.400 REPORTING ON SUPPLEMENTARY INFORMATION

9.401 Supplementary information includes detailed schedules of other data that are not necessary for a fair presentation of the basic financial statements. Whenever supplementary information is included in an auditor-submitted document, the degree of responsibility, if any, the auditor is taking for that information must be indicated. The auditor may either prepare a separate report on the supplementary information or report on the supplementary information in a separate paragraph in the report on the basic financial statements. If a separate report is issued, it should be on the firm's letterhead and be signed. The report date should be the same as the date of the report on the basic financial statements.

9.402 Reports on supplementary information should express or disclaim audit assurance. The extent and results of testing of supplementary information will determine the firm's responsibility in each circumstance. Illustrated in sections 9.620–9.623 are the separate paragraphs that would be added, following the opinion paragraph, to the auditor's report on the basic financial statements. If a separate report on the supplementary information is issued, the first sentence should refer to the report on the basic financial statements.

9.500 OTHER REPORTING SITUATIONS

Reporting on a Single Statement

9.501 In certain circumstances, auditors may accept engagements to audit a single financial statement. Generally these engagements, called "limited reporting engagements," are a result of the client needing a single financial statement to fulfill a contractual requirement, such as a retail entity that must provide its landlord with an audited income statement for purposes of calculating rent. Also, entities that have never been audited often request an audit of the balance sheet only for the first year, with the intention of having audits of the complete set of financial statements in the future. This type of engagement is generally appropriate as long as the auditor is satisfied that there is a legitimate reason for the limited engagement, and provided there are no restrictions on access to information underlying the financial statements or on the scope of the procedures to be performed. In such engagements, the auditor can express an unqualified opinion on the financial statement he or she was engaged to audit. Section 9.624 illustrates this type of report. If the other financial statements are presented, the auditor should issue a disclaimer of opinion on those statements. Section 9.625 illustrates this type of report.

Relying on the Work of a Specialist

9.502 The firm may engage specialists to perform certain work supporting representations in the financial statements. If a review of the specialist's work finds it satisfactory, and if no report modification is necessary because of the specialist's findings, SAS No. 73, *Using the Work of a Specialist* prohibits any reference to the specialist's work.

9.503 If the specialist's work is not adequate to support the financial statement representations, a qualification or disclaimer of opinion because of a scope limitation may be required by SAS No. 73 (AU 336). Findings of the specialist that indicate the financial statements are not in accordance with GAAP may require a qualified or adverse opinion.

Lack of Independence

9.504 Whenever the firm is not independent with respect to a public entity whose financial statements have been audited, a disclaimer of opinion should be issued. For nonpublic entities, the firm should issue a compilation report that includes a statement that the firm is not independent. Section 9.626 illustrates a disclaimer of opinion due to a lack of independence.

Emphasizing a Matter in an Unqualified Opinion

9.505 Occasionally, the firm may express an unqualified opinion, but wishes to call attention to a material matter or circumstance, such as—

- A material accounting principle change to be made in the future.
- Current-period accounting estimate changes that materially affect comparability with prior periods.
- A significant, unusual subsequent event.
- Significant related-party transactions.

9.506 Illustrated in section 9.627 is an auditor's report that includes an emphasis-of-a-matter paragraph.

Updated Opinion Differs From Previous Opinion

9.507 When preparing a report on comparative financial statements, the auditor should consider whether any circumstances or events have come to his or her attention in the current year's audit that could affect his or her opinion on the prior year's financial statements. For example, if a qualified opinion was expressed on the prior year's financial statements due to a departure from GAAP, and in the current year the departure was corrected and the financial statements restated, an unqualified opinion would be issued on the restated financial statements.

9.508 When the updated opinion differs from the original opinion, the reasons for the differing opinions should be disclosed in a separate explanatory paragraph, preceding the opinion paragraph. The explanatory paragraph should disclose the date of the original report, the type of opinion previously expressed, the circumstances or events that caused the auditor to express a different opinion, and the fact that the updated opinion is different from the one previously issued.

9.509 Illustrated in section 9.628 is a report example that includes explanatory paragraphs describing how the updated opinion differs from the previous opinion.

Reissuance of Audit Reports as Predecessors

9.510 If the firm is asked by a former client to reissue its report on prior-period financial statements, the firm should inform the client of the procedures necessary to comply with that request. If the client agrees to perform these procedures and pay the fee for these services, the firm would ordinarily agree to reissue the report.

9.511 Before reissuing a report, the firm should consider whether the previous opinion on those prior-period statements is still appropriate. Differences in the current form and presentation of the financial statements for the prior period, or the possibility of material subsequent events affecting those financial statements, could make the previous opinion inappropriate. The firm should perform at least the following procedures:

1. Read the financial statements of the current period.

2. Compare the prior-period financial statements with the financial statements to be presented in comparative format by the successor.

3. Obtain a letter of representation from the successor auditor. The successor should represent that his or her audit has not revealed any matters that may have a material effect on the prior-period financial statements.

9.512 If the firm reissues its report without change, the previous report date should be used. If the financial statements or the report of the prior period are revised, the report should be dual dated in respect to the event or matter causing the revision. There should be no reference to the report or the work of the successor auditor.

Reissuance of the Independent Auditor's Report Subsequent to the Date of the Original Issue

9.513 Occasionally the firm may be requested by a client to furnish additional copies of a previously issued report. Approval of the engagement partner is necessary to reissue a previously issued report. Upon such reissue, the partner should prepare a memo stating the reasons for the reissue of additional copies and that he or she is not aware of any circumstances occurring subsequent to the original report date that would require adjustment to or disclosure in the financial statements.

9.514 Use of the original report date removes any implication that records, transactions, or events after that date have been audited or reviewed. Although the firm has no responsibility to make further investigation or inquiry as to subsequent events, the engagement partner should consider a brief discussion with the client's chief financial or executive officer before reissuing the report.

Subsequent Discovery of Facts Existing at Report Date

9.515 Although the auditor has no obligation to make any continuing inquiries or perform other procedures after issuance of the report, the auditor may become aware of information that affects the financial statements previously reported on. When the auditor becomes aware of such information, the auditor should determine the reliability of the information and whether such information existed at the date of the report. The engagement partner should make inquiries of client management in this regard.

9.516 If (1) the information is reliable and did exist at the date of the report, (2) the report would have been affected if the information had been known at the report date, and (3) there are persons relying on the financial statements who would attach importance to the information, the auditor should take action to prevent future reliance on the report. If the engagement partner concludes that action should be taken to prevent future reliance on the report, he or she should advise the client to make appropriate disclosure of the newly discovered facts and their impact on the financial statements to the persons known to be, or likely to be, relying on the financial statements and related report. Disclosures should be made in one of the following ways:

- If the effects of subsequent facts can be promptly determined, disclosure should include reissuing revised financial statements and a revised report. The reasons for the revision usually should be described in a note to the financial statements and referred to in the report.

- If the current financial statements have not been released, appropriate disclosure of the revision of the prior-period financial statements can be included therein.
- When the effects of subsequent facts cannot be readily determined, revisions of financial statements and reports may be delayed. In this case, persons known to be, or likely to be, relying on the financial statements should be notified by the client that the financial statements and related reports should not be relied on, and that revised financial statements and report will be forthcoming.

9.517 If the client refuses to make the disclosures discussed above, the firm should contact legal counsel. The engagement partner should also notify all members of the board of directors of such refusal and that the firm will take the following steps to prevent future reliance on its report:

- Notify the client that the auditor's report must no longer be associated with the financial statements.
- Notify any applicable regulatory agencies that the report should no longer be relied upon.
- Notify each person known to be relying on the financial statements that the report should no longer be relied upon.

9.518 If investigation of the subsequently discovered information is satisfactory, and it is determined that the information is reliable, the notifications in section 9.517 should include a description of the effects of the information on the financial statements. If the client has not cooperated and, as a result, the auditor has been unable to conduct a satisfactory investigation, the auditor does not need to indicate the details of the information. Instead, the auditor should indicate that the report must not longer be relied upon nor should the auditor be associated with the financial statements.

9.600 SAMPLE AUDITOR'S REPORTS

9.601 Single Period Financial Statements

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

9.602 Comparative Financial Statements

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.603 Qualified Opinion—Scope Limitation

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

Except as discussed in the following paragraph, we conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

We were unable to obtain audited financial statements supporting the Company's investment in a foreign affiliate stated at $____ and $____ at December 31, 19X and 19W, respectively, or its equity in earnings of that affiliate of $___ and $____, which is included in net earnings for the years then ended as described in Note X to the financial statements; nor were we able to satisfy ourselves as to the carrying value of the investment in the foreign affiliate or the equity in its earnings by other auditing procedures.

In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had we been able to examine evidence regarding the foreign affiliate investment and earnings, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.604 Disclaimer of Opinion—Scope Limitation

Independent Auditor's Report

We were engaged to audit the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management.

The Company did not make a count of its physical inventory in 19X or 19W, stated in the accompanying financial statements at $____ as of December 31, 19X, and at $____ as of December 31, 19W. Further, evidence supporting the cost of property and equipment acquired prior to December 31, 19W, is no longer available. The Company's records do not permit the application of other auditing procedures to inventories or property and equipment.

Since the Company did not take physical inventories and we were not able to apply other auditing procedures to satisfy ourselves as to inventory quantities and the cost of property and equipment, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on these financial statements.

9.605 First-Year Audit—Beginning Balances Not Audited

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and were engaged to audit the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

Except as discussed in the following paragraph, we conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We did not observe the taking of the physical inventory as of December 31, 19W, since that date was prior to our appointment as auditors for the Company, and we were unable to satisfy ourselves regarding inventory quantities by means of other auditing procedures. Inventory amounts as of December 31, 19W, enter into the determination of results of operations and cash flows for the year ended December 31, 19X. Therefore, we are unable to express, and do not express, an opinion on the accompanying statements of earnings, retained earnings, and cash flows for the year ended December 31, 19X.

In our opinion, the accompanying balance sheet presents fairly the financial position XYZ Company, Inc. as of December 31, 19X, in conformity with generally accepted accounting principles.

Note:

(1) Generally, entities that have never been audited, initially engage an auditor to perform a balance-sheet-only audit the first year, and audits of all financial statements thereafter. See section 23.624 for a report example based on an audit of the balance sheet only.

9.606 Qualified Opinion—Departure from GAAP

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. The financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The Company has excluded, from property and long-term debt in the accompanying balance sheets, certain lease obligations that, in our opinion, should be capitalized in order to conform with generally accepted accounting principles. If these lease obligations were capitalized, property would be increased by $___ and $___, long-term debt by $___ and $___, and retained earnings by $___ and $___ as of December 31, 19X and 19W, respectively. Additionally, net earnings would be increased (decreased) by $___ and $___ and earnings per share would be increased (decreased) by $___ and $___, respectively, for the years then ended.

In our opinion, except for the effects of not capitalizing certain lease obligations as discussed in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.607 Adverse Opinion—Departure from GAAP

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note X to the financial statements, the Company carries its property, plant, and equipment accounts at appraisal values, and provides depreciation on the basis of such values. Further, the Company does not provide for deferred taxes with respect to differences between the tax bases of assets and their financial reporting amounts arising because of the use, for income tax purposes, of the accelerated method of depreciation. Generally accepted accounting principles require that property, plant, and equipment be stated at an amount not in excess of cost, reduced by depreciation based on such amount, and that deferred income taxes be provided.

Because of the departures from generally accepted accounting principles identified above, as of December 31, 19X and 19W, inventories have been increased $_____ and $_____ by inclusion in manufacturing overhead of depreciation in excess of that based on cost; property, plant, and equipment, less accumulated depreciation, is carried at $____ and $____ in excess of an amount based on the cost to the Company; and deferred income taxes of $____ and $____ have not been recorded; resulting in an increase of $____ and $____ in retained earnings and in stockholders' equity of $____ and $____, respectively. For the years ended December 31, 19X and 19W, cost of goods sold has been increased $____ and $____, respectively, because of the effects of the depreciation accounting referred to above, and deferred income taxes of $__ and $_____ have not been provided, resulting in an increase in net earnings of $____ and $_____, respectively.

In our opinion, because of the effects of the matters discussed in the preceding paragraphs, the financial statements referred to above do not present fairly, in conformity with generally accepted accounting principles, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, or the results of its operations or its cash flows for the years then ended.

9.608 Qualified Opinion—Inadequate Disclosure

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings and retained earnings for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The Company declined to present a statement of cash flows for the years ended December 31, 19X and 19W. Presentation of such statement summarizing the company's operating, investing, and financing activities is required by generally accepted accounting principles.

In our opinion, except that the omission of a statement of cash flows results in an incomplete presentation as explained in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations for the years then ended in conformity with generally accepted accounting principles.

9.609 Explanatory Paragraph—Change of GAAP

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

As discussed in Note X to the financial statements, the Company changed its method of computing depreciation in 19X.

9.610 Change to an Unacceptable Principle—Qualified Opinion

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also incudes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note A, the Company previously allocated manufacturing overhead to inventories. On January 1, 19X, the Company adopted the method of charging manufacturing overhead to expense when incurred. This practice has understated net earnings for the year ended December 31, 19X, by $___. This new method is not in accordance with generally accepted accounting principles.

In our opinion, except for the effects of the change in the method of recording manufacturing expenses described in the preceding paragraph, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.611 Client Fails to Provide Reasonable Justification for a Change Between Alternative Acceptable Principles

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As disclosed in Note X to the financial statements, the Company adopted, in 19X, the first-in, first-out method of accounting for its inventories, whereas it previously used the last-in, first-out method. Although use of the first-in, first-out method is in conformity with generally accepted accounting principles, in our opinion the Company has not provided reasonable justification for making this change as required by generally accepted accounting principles.

In our opinion, except for the change in accounting principle discussed in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.612 Uncertainty

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

As discussed in Note X to the financial statements, the Company is a defendant in a lawsuit alleging infringement of certain patent rights and claiming royalties and punitive damages. The Company has filed a counteraction, and preliminary hearings and discovery proceedings on both actions are in progress. The ultimate outcome of the litigation cannot presently be determined. Accordingly, no provision for any liability that may result upon adjudication has been made in the accompanying financial statements.

9.613 Going-Concern Uncertainty

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note X to the financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raises substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note X. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

9.614 Report Indicating Divided Responsibility

Independent Auditor's Report

We have audited the consolidated balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related consolidated statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of Y Company, a wholly owned subsidiary, which statements reflect total assets of $____ and $____ as of December 31, 19X and 19W, respectively, and total revenues of $____ and $__ for the years then ended. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Y Company, is based solely on the report of the other auditors.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.615 Predecessor Declines Reissue—Prior Period Unqualified

Independent Auditor's Report

We have audited the balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of XYZ Company, Inc. as of December 31, 19W, were audited by other auditors whose report dated March 31, 19X, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 19X financial statements present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

9.616 Predecessor Declines Reissue—Prior Period Qualified

Independent Auditor's Report

We have audited the balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of XYZ Company, Inc. as of December 31, 19W, were audited by other auditors whose report, dated March 1, 19X, on those statements was qualified with respect to the outcome of the litigation discussed in Note A to the financial statements.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit incudes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 19X financial statements present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

9.617 Predecessor Declines Reissue—Prior Period Unqualified—Restatement Subsequently Made

Independent Auditor's Report

We have audited the balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of XYZ Company, Inc. as of December 31, 19W, were audited by other auditors whose report, dated March 1, 19X, on those statements was qualified because the Company did not capitalize lease obligations. As discussed in Note A, the Company has restated its 19W financial statements to conform to generally accepted accounting principles. The other auditors reported on the 19W financial statements prior to the restatement.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 19X financial statements present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

We also audited the adjustments described in Note A that were applied to restate the 19W financial statements. In our opinion, such adjustments are appropriate and have been properly applied.

9.618 Current Year Audited—Prior Period Reviewed

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

The 19W financial statements were reviewed by us and our report thereon, dated April 5, 19X, stated we were not aware of any material modifications that should be made to those statements for them to be in conformity with generally accepted accounting principles. However, a review is substantially less in scope than an audit and does not provide a basis for the expression of an opinion on the financial statements taken as a whole.

9.619 Current Year Audited—Prior Period Compiled

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

The 19W financial statements were compiled by us and our report thereon, dated April 5, 19X, stated we did not audit or review those financial statements and, accordingly, express no opinion or other form of assurance on them.

Note: This report example presumes that the prior-period financial statements contain all disclosures required by GAAP. SSARS No. 2 precludes presentation of compiled statements that omit substantially all disclosures in comparative form with full-disclosure statements that have been audited, reviewed, or compiled.

9.620 Unqualified Report on Supplementary Information

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information presented on pages x through z is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

9.621 Disclaimer on Part of Supplementary Information

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The information presented on pages x through z is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information, except for that portion marked "unaudited," on which we express no opinion, has been subjected to the auditing procedures applied in the audit of the basic financial statements; and, in our opinion, the information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

9.622 Disclaimer on All Supplementary Information

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The information presented on pages x through z is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and, accordingly, we express no opinion on it.

9.623 Report on Basic Financial Statements Qualified—Qualified Opinion on Supplementary Information

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X, and the related statements of earnings, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The information presented on pages x through z is presented for purposes of additional analysis and is not a required part of the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements, and, in our opinion, except for the effects of [describe effects], such information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

9.624 Report on Balance Sheet—Balance Sheet Only Presented

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company as of December 31, 19X. This financial statement is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the balance sheet is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the balance sheet. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall balance-sheet presentation. We believe that our audit of the balance sheet provides a reasonable basis for our opinion.

In our opinion, the balance sheet referred to above presents fairly, in all material respects, the financial position of XYZ Company as of December 31, 19X, in conformity with generally accepted accounting principles.

9.625 Report on Balance Sheet—Disclaimer on Other Statements

Independent Auditor's Report

We have audited the accompanying balance sheet of XYZ Company, Inc. as of December 31, 19X. This financial statement is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the balance sheet is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the balance sheet. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall balance sheet presentation. We believe that our audit of the balance sheet provides a reasonable basis for our opinion.

In our opinion, the balance sheet referred to above presents fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X, in conformity with generally accepted accounting principles.

Because we were not engaged to audit the related statements of earnings, retained earnings, and cash flows, we did not extend our auditing procedures to enable us to express, and accordingly we do not express, an opinion on those financial statements.

9.626 Lack of Independence (public companies only)

Auditor's Report

We are not independent with respect to XYZ Company, and the accompanying balance sheet as of December 31, 19X, and the related statements of income, retained earnings, and cash flows for the year then ended were not audited by us and, accordingly, we do not express an opinion on them.

Note: This report is appropriate for public companies only. For nonpublic companies, the auditor should issue a compilation report that indicates the lack of independence.

9.627 Emphasis of a Matter

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

As stated in Note A to the financial statements, the Company plans to acquire $___ of new production equipment. The new equipment will be depreciated by accelerated methods of depreciation. Similar equipment currently in use is fully depreciated.

9.628 Subsequent Restatement of Prior Period to Conform with GAAP

Independent Auditor's Report

We have audited the accompanying balance sheets of XYZ Company, Inc. as of December 31, 19X and 19W, and the related statements of earnings, retained earnings, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our report dated April 5, 19X, we expressed an opinion that the 19W financial statements did not fairly present financial position, results of operations, and cash flows in conformity with generally accepted accounting principles because of two departures from such principles:

1. The Company carried its property and equipment at fair market values, and provided for depreciation on the basis of such values.

2. The Company did not provide for deferred taxes with respect to differences between the tax bases of assets and liabilities and their financial reporting amounts.

As described in Note A, the Company has restated its 19W financial statements to conform with generally accepted accounting principles. Accordingly, our present opinion on the 19W financial statements, as presented herein, is different from that expressed in the previous report.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of XYZ Company, Inc. as of December 31, 19X and 19W, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

9.700 FINANCIAL STATEMENT CHECKLIST AND ILLUSTRATIVE FINANCIAL STATEMENTS

9.701 This section is designed to guide practitioners in preparing or reviewing the financial statements of a construction contractor to ensure that they are presented in conformity with generally accepted accounting principles and in drafting and reviewing the auditor's report. Two checklists are presented in this section: the Small Business Audit Reporting and Disclosure Checklist and the Financial Statement Disclosure Supplement Checklist for Construction Contractors.

9.702 The Small Business Audit Reporting and Disclosure Checklist contains the disclosures typically found in financial statements of a small business, and the reporting situations most frequently encountered by auditors of small businesses. [1] It does not contain all of the disclosures required by generally accepted accounting principles nor all of the reporting situations covered by generally accepted auditing standards. This checklist should be completed on every financial statement engagement, along with the Checklist Supplement for Construction Contractors, which contains the additional disclosures items unique to construction contractors.

9.703 Included in this section are illustrative financial statements for construction contractors using both the percentage-of-completion method and the completed contract method. These should assist the auditor or his or her client in drafting the financial statements.

[1] The AICPA *Checklists and Illustration Financial Statements for Corporations* contains many additional disclosures required for larger and more complex entities. It can be ordered by calling the AICPA Order Department at (800) 862-4272 and requesting product number 008685.

9.704

Small Business Disclosure and Reporting Checklist

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS:

This checklist has been developed especially for use in audits of small business entities. Included are *only* (1) the disclosures typically required in financial statements of small businesses and (2) the reporting situations typically encountered in audits of small businesses. Accordingly, users should carefully consider the need to modify these checklists for any additional disclosure requirements and/or reporting situations encountered during the engagement. [1]

For each item, place a check mark (✓) in the "Yes," "No," or "N/A" (not applicable) column. Add additional explanations such as "N/M" (not material) if necessary.

Explanation of References:

APB	=	AICPA Accounting Principles Board Opinion
ARB	=	AICPA Accounting Research Bulletin
FASBI	=	FASB Interpretation
FASCON	=	FASB Statement of Financial Accounting Concepts
SAS	=	AICPA Statement on Auditing Standards
SFAS	=	FASB Statement of Financial Accounting Standards
SOP	=	AICPA Statement of Position
TB	=	FASB Technical Bulletin

General

	Yes	No	N/A
A. Titles and References			
1. Are the financial statements suitably titled? (SAS 62)	___	___	___
2. Does each statement include a general reference to the notes?	___	___	___

[1] The AICPA's *Checklists and Illustrative Financial Statements for Corporations* contains comprehensive checklists that include additional disclosures required for larger and more complex entities.

	Yes	No	N/A
3. Are the notes referenced to and from the applicable statement classification or appropriately captioned?	___	___	___
B. Disclosure of Accounting Policies [APB 22 (AC A10)]			
1. Is a description of all significant accounting policies presented?	___	___	___
C. Related-Party Transactions [SFAS 57 (AC R36)]			
1. For related-party transactions, do disclosures include—			
a. The nature of the relationship?	___	___	___
b. A description of the transactions and other information deemed necessary to understand the effects of the transactions on the financial statements?	___	___	___
c. The dollar amounts of transactions for each income statement presented?	___	___	___
d. Amounts due from or to related parties as of each balance-sheet date and the terms and manner of settlement?	___	___	___
e. The information required by paragraph 49 of SFAS 109, *Accounting for Income Taxes*.	___	___	___
D. Contingencies and Commitments/Risks and Uncertainties [SFAS 5, SOP 94-6 (AC C59)]			
1. Are the nature and amount of loss contingencies properly disclosed?	___	___	___
2. For loss contingencies not accrued, do disclosures indicate—			
a. The nature of the contingency?	___	___	___
b. An estimate of possible loss or range of loss, or a statement that such estimate cannot be made?	___	___	___
3. Are the nature and amount of guarantees disclosed (for example, guarantee of indebtedness of others and guarantees to repurchase receivables that have been sold or otherwise assigned)?	___	___	___
4. Are gain contingencies adequately disclosed with care to avoid any misleading implications about the likelihood of realization?	___	___	___

	Yes	No	N/A
Risks and Uncertainties. (SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties,* is effective for financial statements issued for fiscal years ending after December 15, 1995.)			
5. Do the financial statements include the following disclosures about risks and uncertainties?			
a. Nature of operations.	___	___	___
b. Use of estimates in the preparation of financial statements.	___	___	___
c. Certain significant estimates (if certain conditions are met).	___	___	___
d. Current vulnerability due to certain concentrations (if certain conditions are met).	___	___	___
E. Subsequent Events (SAS 1)			
1. Are the financial statements adjusted for the effects of any subsequent events related to conditions that existed at the balance-sheet date?	___	___	___
2. Are any subsequent events related to conditions that did not exist at the balance-sheet date, but arose after that date, disclosed?	___	___	___
F. Limited Liability Companies (LLCs) [PB 14]			
1. Are the financial statements clearly identified as being those of an LLC?	___	___	___
2. If the LLC has a finite life, do disclosures include the date the LLC will cease to exist?	___	___	___
3. Do disclosures include:			
a. A description of any limitation of an LLC member's liability?	___	___	___
b. The different classes of member's interest and the respective rights, preferences, and privileges of each class?	___	___	___
4. Are all disclosures regarding members' equity and changes in members' equity for the period made?	___	___	___
5. Are all disclosures relating to the conversion of the entity to an LLC made?	___	___	___

	Yes	No	N/A
G. Other Matters			
1. Are material changes in the current financial statement classifications and conforming reclassifications in prior period comparative statements indicated and explained in the financial statements or notes? (SAS 1)	___	___	___
2. If there were nonmonetary transactions (including involuntary conversions) during the period, are the following disclosed? (APB 29)			
a. Nature of the transactions.	___	___	___
b. Basis of accounting for the assets transferred.	___	___	___
c. Gains or losses recognized on transfers.	___	___	___
3. If a business combination occurred during the period, has the appropriate accounting method been used and do the financial statements and notes include all required disclosures? [APB 16, SFAS 38, FASBI 4 (AC B50)]	___	___	___
4. Postretirement Benefits Other Than Pensions [SFAS 106]			
a. If there are one or more defined benefit postretirement plans, do disclosures include—			
1. A description of the substantive plan(s) that is (are) the basis for the accounting?	___	___	___
2. The amount of net periodic postretirement benefit cost?	___	___	___
3. A schedule reconciling the funded status of the plan(s) with amounts reported in the employer's statement of financial position?	___	___	___
4. The assumption and rates used in computing the expected postretirement benefit obligation and the accumulated postretirement benefit obligation (APBO) including the assumed health care cost trend rates; assumed discount rates; and the effect of a one-percentage-point increase in the assumed health care cost trend rate on the measurement of the APBO, the service cost, and the interest cost?	___	___	___
5. The amounts and types of securities of the employer and related parties included in plan assets and the approximate amount of future annual benefits of plan participants covered by insurance contracts issued by the employer and related parties?	___	___	___

	Yes	No	N/A
6. Any alternative amortization method used pursuant to paragraphs 53 or 60 of SFAS 106?	___	___	___
7. The amount of gain or loss recognized during the period for a settlement or curtailment and a description of the nature of the event(s)?	___	___	___
8. The cost of providing special or contractual termination benefits recognized during the period and a description of the nature of the event(s)?	___	___	___
b. If there are one or more defined-contribution postretirement plans, have the following items been disclosed separately from defined benefit postretirement plan disclosures:			
1. A description of the plan(s)?	___	___	___
2. The amount of cost recognized during the period?	___	___	___
c. If an obligation for postemployment benefits is not accrued in accordance with SFAS 5 or 43 only because the amount cannot be reasonably estimated, has that fact been disclosed in the financial statements? [SFAS 112 (AC P32)]	___	___	___
d. If SFAS 106 has not been adopted, are health care or life insurance benefits provided to retirees, their dependents, or survivors properly disclosed? [SFAS 81 (AC P50)]	___	___	___
5. If an employer sponsors an employee stock ownership plan (ESOP), do the employer's disclosures include:			
a. A description of the plan?	___	___	___
b. A description of the accounting policies followed for ESOP transactions?	___	___	___
c. The amount of compensation cost recognized during the period?	___	___	___
d. The number of allocated shares, committed-to-be-released shares, and suspense shares held by the ESOP at the balance-sheet date?	___	___	___

	Yes	No	N/A
e. The fair value of unearned ESOP shares at the balance-sheet date for shares accounted for under SOP 93-6?[2]	___	___	___
f. The existence and nature of any repurchase obligation, including disclosure of the fair value of the shares allocated as of the balance-sheet date, which are subject to a repurchase obligation?[3] [SOP 93-6, par. 53]	___	___	___

Balance Sheet

A. Cash

	Yes	No	N/A
1. Is restricted cash segregated from cash available for current operations and properly disclosed? [ARB 43 (AC B05)]	___	___	___

B. Investment Securities [SFAS 115 (AC F25, I80)]

1. For marketable securities classified as available-for-sale and held-to-maturity, do disclosures include—

	Yes	No	N/A
a. Aggregate fair value for the latest balance sheet presented?	___	___	___
b. Gross unrealized gains and gross unrealized losses for the latest balance sheet presented?	___	___	___
c. Amortized cost basis by major security type for each balance sheet presented?	___	___	___
d. Contractual maturities of debt securities for the latest balance sheet presented?	___	___	___
e. Information about sales, cost, and realized and unrealized gains and losses for each income statement presented?	___	___	___

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[2] This disclosure need not be made for old ESOP shares for which the entity does not apply the guidance in SOP 93-6.

[3] Employers may wish to disclose additional information about the obligation, particularly information about the timing of payments. [SOP 93-6, par. 95]

	Yes	No	N/A
2. Are significant net realized and net unrealized gains and losses that arose after the latest balance-sheet date but before issuance of the financial statements disclosed?	___	___	___
3. Are valuation allowances deducted from their related portfolios with appropriate disclosure?	___	___	___

C. Financial Instruments Including Derivatives (SFAS 119 is effective for financial statements issued for fiscal years ending after December 15, 1994, except for entities with less than $150 million in total assets, for which it is effective for fiscal years ending after December 15, 1995. In addition to requiring disclosures related to derivatives, SFAS 119 expands and amends SFASs 105 and 107.) [SFASs 105, 107, and 119]

	Yes	No	N/A
1. Are all disclosures (including contract amount, nature and terms, amount of accounting loss at risk, and the entity's policies) for all financial instruments (those with and without off-balance-sheet risk) included in the body of the financial statements or in the notes by category of financial instrument? [Refer to SFAS 105, pars. 17 and 18, as amended by SFAS 119, par. 14, and SFAS 119, pars. 8 and 9 for required disclosures.]	___	___	___
2. Are all significant concentrations of credit risk arising from all financial instruments disclosed?	___	___	___
3. Are all fair value disclosures made with regard to all financial instruments?	___	___	___
4. Do the disclosures in Steps 1 and 3 distinguish between financial instruments held for trading purposes and those held for purposes other than trading?	___	___	___
5. If the offsetting of derivatives against nonderivatives is not permitted under FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts,* does the entity, when disclosing the fair value of derivatives, not combine, aggregate, or net the fair values?	___	___	___
6. Are all disclosures for derivatives held for purposes other than trading included in the financial statements? (Note: small businesses rarely hold derivatives for trading purposes, therefore, disclosures for such derivatives are not included in this checklist. If the entity hold derivatives for trading purposes, refer to SFAS 119 for required disclosures.)	___	___	___

	Yes	No	N/A
D. Receivables [ARB 43 and APB 12 (AC B05, V18)]			
1. Are accounts and notes receivable from officers, employees, and affiliated companies shown separately with appropriate disclosures?	___	___	___
2. Are unbilled receivables (for example, unbilled costs and fees under cost-plus-fixed-fee contracts) shown separately from billed receivables?	___	___	___
3. Are allowances for uncollectible receivables shown as deductions from the related receivables?	___	___	___
4. If the entity has extended a loan that is impaired, are the disclosures required by SFAS 114, as amended by SFAS 118, included in the financial statements?	___	___	___
E. Inventories [ARB 43 (AC I78)]			
1. Are the major classes of inventory disclosed (for example, finished goods, work in process, and raw materials)?	___	___	___
2. Is the method of determining inventory cost (for example, LIFO, FIFO) disclosed?	___	___	___
3. Is the basis for recording inventory disclosed (for example, lower of cost or market)?	___	___	___
F. Investments [APB 18 (AC I82)]			
1. Is the equity method used to account for investments in the common stock of—			
a. Corporate joint ventures?	___	___	___
b. Investees in which the entity has an "ability to exercise significant influence" (generally 20% or more of the voting stock)?	___	___	___
2. Are the appropriate disclosures made for investments in common stock accounted for by the equity method?	___	___	___
G. Property and Equipment [APB 12 (AC D40)]			
1. For depreciable assets, do disclosures include—			
a. Depreciation expense for each income statement presented?	___	___	___

	Yes	No	N/A
b. Balances of major classes of depreciable assets by nature or function?	___	___	___
c. Accumulated depreciation, either by major class of assets or in total?	___	___	___
d. Depreciation methods for each major class of depreciable assets?	___	___	___
2. If SFAS 121 has been adopted, have the following disclosures been included in the financial statements:			
a. Disclosures required if an impairment loss is recognized for assets to be held or used, such as a description of the assets and impairment, amount of impairment, how the fair value was determined, and the income statement caption in which the impairment loss is aggregated. [Refer to SFAS 121, par. 14]	___	___	___
b. Disclosures required for assets disposed of in accordance with paragraphs 15-17 of SFAS 121, such as a description and carrying amount of the assets, the loss resulting from application of paragraph 15, the gain or loss resulting from the application of paragraph 17, the income statement caption in which the gains or losses are aggregated, and the result of operations for the assets. [Refer to SFAS 121, par. 19]	___	___	___
3. If an impairment loss is recognized, is it reported as a component of income from continuing operations?	___	___	___
H. Lessors [SFAS 13 (AC L10)]			
1. For sales-type and direct financing leases, do disclosures include—			
a. Components of net investment in leases?	___	___	___
b. Future minimum lease payments to be received for each of the next five years?	___	___	___
c. Total contingent rentals included in income for each income statement presented?	___	___	___
d. The amount of initial direct costs for direct financing leases? (SFAS 91)	___	___	___
2. For operating leases, do disclosures include—			
a. Cost and carrying amounts of leased property by major class and the amount of accumulated depreciation?	___	___	___

	Yes	No	N/A
b. Minimum future rentals in the aggregate and for each of the next five years?	___	___	___
c. Total contingent rentals included in income for each income statement presented?	___	___	___
3. Do disclosures include a general description of the lessor's leasing arrangements?	___	___	___
I. Other Assets and Deferred Charges (AC I60 and I27)			
1. Are the costs of intangible assets acquired from other entities recorded as assets? (APB 17)	___	___	___
2. Do disclosures include the method and period of amortization? (APB 17)	___	___	___
3. Are deferred tax assets for each tax-paying component (an individual entity or group of entities that is consolidated for tax purposes) in each tax jurisdiction presented separately? (SFAS 109)	___	___	___
4. Are deferred tax assets classified as current or noncurrent based on the classification of the related asset, and are deferred tax assets not related to an asset classified according to the expected reversal date of the temporary difference?	___	___	___
5. Have the following items been offset and presented as a single amount for a particular tax paying component and within a particular tax-paying jurisdiction (SFAS 109):			
a. All current deferred tax liabilities and assets?	___	___	___
b. All noncurrent deferred tax liabilities and assets?	___	___	___
6. Are the components of the total of all deferred tax assets and valuation allowances reported in the balance sheet disclosed? (SFAS 109)	___	___	___
7. Has any valuation allowance for deferred tax assets been allocated between current and noncurrent on a pro rata basis? (SFAS 109)	___	___	___
8. Foreclosed assets:			
a. Are foreclosed assets held for sale valued and disclosed at the lower of fair value (minus estimated costs to sell) or cost? (SOP 92-3)	___	___	___

	Yes	No	N/A
b. If the fair value of the asset, minus the estimated cost to sell, is less than the cost of the asset, has the deficiency been recognized and disclosed as a valuation allowance? (SOP 92-3)	___	___	___
c. Have changes in the valuation allowance based upon fluctuations in the fair value less disposal costs been charged or credited and disclosed, if material, to income? (SOP 92-3)	___	___	___
J. Notes Payable and Other Debt (AC B05)			
1. Are interest rates, maturities, assets pledged as collateral, and other terms and conditions provided in loan agreements properly disclosed? (SFAS 5, FASCON 6)	___	___	___
2. Are the amounts of fixed maturities for all long-term borrowings disclosed in the aggregate and for each of the next five years? (SFAS 47)	___	___	___
3. Are current portions of debt obligations presented as current liabilities? (ARB 43)	___	___	___
K. Lessees [SFAS 13 (AC L10)]			
1. For capital leases, do disclosures include a general description of the lessee's leasing arrangements and—			
a. Identification of gross amounts of assets recorded by major classes and the related accumulated amortization and obligations under the lease, and amortization expense (unless it is included in depreciation expense and disclosed as such)?	___	___	___
b. Future minimum lease payments, in the aggregate and for each of the next five years, with deductions for executory costs and imputed interest?	___	___	___
c. Total of future minimum sublease rentals under noncancelable subleases?	___	___	___
d. Total contingent rentals incurred for each income statement presented?	___	___	___
e. Assets recorded under capital leases, either in the balance sheet or the notes?	___	___	___

	Yes	No	N/A
2. For operating leases that have initial or remaining noncancelable lease terms in excess of one year, do disclosures include—			
a. Future minimum rental payments required in the aggregate and for each of the next five years?	___	___	___
b. Total of future minimum rentals under noncancelable subleases?	___	___	___
3. For all operating leases, do disclosures include rental expense for each income statement presented with separate amounts for minimum rentals, contingent rentals, and sublease rentals?	___	___	___
L. Other Liabilities and Deferred Credits [In6, C59, C44, P16 (AC I27)]			
1. Have deferred tax liabilities determined for each tax-paying component (an individual entity or group of entities that is consolidated for tax purposes) in each tax jurisdiction been presented separately? (SFAS 109)	___	___	___
2. Have deferred tax liabilities been classified as current or noncurrent based on the related asset or liability? (SFAS 109)	___	___	___
3. Have deferred tax liabilities not related to an asset or liability been classified according to the expected reversal date of the temporary difference pursuant to SFAS 37? (SFAS 109)	___	___	___
4. Have the components of the total of all deferred tax liabilities recognized in the balance sheet been disclosed? (SFAS 109)	___	___	___
5. Are estimated loss contingencies accrued if they are probable and the amount can be reasonably estimated? (SFAS 5 and FASBI 14)	___	___	___
6. Are liabilities appropriately accrued and reported for employees' compensation for future absences? (SFAS 43)	___	___	___
7. Are liabilities for special termination benefits to employees accrued and reported when the employees accept the offer and the amount can be reasonably estimated? (SFAS 88)	___	___	___
M. Stockholders' Equity [AC C59]			
1. For each class of stock, do disclosures include the number of shares authorized, issued and outstanding, and par or stated value per share? (APB 15)	___	___	___

	Yes	No	N/A
2. Are restrictions on payment of dividends disclosed? (SFAS 5)	___	___	___
N. Changes in Stockholders' Equity			
1. Are changes in the components of stockholders' equity disclosed? (APB 12)	___	___	___
2. Are prior-period adjustments and their resulting effects (both gross and net of applicable income taxes) appropriately disclosed? (APB 9)	___	___	___
3. For a correction of an error, are the following disclosed in the period in which the error was discovered and corrected?			
a. Nature of the error.	___	___	___
b. Effect of its correction on income before extraordinary items, net income, and related per share amounts (if applicable). (APB 20)	___	___	___

Income Statement (Also see Balance Sheet sections B and C disclosures relating to financial instruments and derivatives)

	Yes	No	N/A
A. Revenues and Expenses			
1. Are the important components of income separately disclosed, such as—			
a. Interest expense? [SFAS 34 (AC I67)]	___	___	___
b. Income taxes? [SFAS 109 (AC I27)]	___	___	___
c. Sales or other sources of revenue, cost of sales, and selling and administrative expenses? [SFAS 89 (AC C28)]	___	___	___
2. For debt and marketable equity securities classified as available-for-sale or held-to-maturity, are the following disclosures made, by major security type, for each balance sheet presented?			
a. Aggregate fair value.	___	___	___
b. Gross unrealized holding gains and losses.	___	___	___
c. Amortized cost basis. [SFAS 115 (AC I80)]	___	___	___

	Yes	No	N/A
3. For investments in debt securities classified as available-for-sale or held-to-maturity is disclosure made about their contractual maturities as of the latest balance sheet date presented? (SFAS 115)	___	___	___
4. For each income statement presented, are the following disclosures made?			
a. The proceeds from sales of available-for-sale securities and gross realized gains and losses on those sales.	___	___	___
b. The basis on which cost was determined in computing realized gain or loss.	___	___	___
c. The gross gains and losses included in earnings from transfers of securities from the available-for-sale category to the trading category.	___	___	___
d. The change in net unrealized holding gain or loss on available-for-sale securities.	___	___	___
e. The change in net unrealized holding gain or loss on trading securities. [SFAS 115 (AC I80)]	___	___	___
5. For any sales or transfers of held-to-maturity securities, is disclosure made of the following for each income statement presented?			
a. Amortized cost amount of the sold or transferred security.	___	___	___
b. Related realized or unrealized gain or loss.	___	___	___
c. The circumstances leading to the decision to sell or transfer the security. [SFAS 115 (AC I80)]	___	___	___
6. For investments in common stock accounted for by the equity method [APB 18 (AC I82)]:			
a. Are intercompany profits and losses eliminated?	___	___	___
b. Is the investor's share of earnings shown as a single amount?	___	___	___
7. Is the amount of interest expense disclosed in the statements or notes thereto, and the amount that has been capitalized, if any? [SFAS 34 (AC I67)]	___	___	___

	Yes	No	N/A
8. Do disclosures for advertising costs include: (SOP 93-7)			
a. The accounting policy selected?	___	___	___
b. A description of the direct-response advertising reported as assets (if any), the accounting policy for it, and the amortization period?	___	___	___
c. The total amount charged to advertising expense for each income statement presented, with separate disclosure of amounts, if any, representing a write-down to net realizable value?	___	___	___
d. The total amount of advertising reported as assets in each balance sheet presented?	___	___	___
B. Income Taxes [SFAS 109 (AC I27, Q15)]			
1. Have the types of significant temporary differences and carryforwards been disclosed?	___	___	___
2. Are the significant components of income tax expense (such as current and noncurrent income tax expense) attributable to continuing operations for each year presented disclosed?	___	___	___
3. Is the amount of income tax expense or benefit allocated to continuing operations and the amounts separately allocated to other items (see paragraphs 35–39 of SFAS 109) disclosed for each year for which those items are presented?	___	___	___
4. Is the nature of significant reconciling items disclosed?	___	___	___
5. Have the amounts and expiration dates of operating loss and tax credit carryforwards for tax purposes been disclosed?	___	___	___
C. Extraordinary Items [APB 30 (AC I17)]			
1. Do extraordinary items meet both criteria of (a) an unusual nature and (b) infrequency of occurrence?	___	___	___
2. Are extraordinary items segregated and shown (including applicable income taxes) following income before extraordinary items and before net income?	___	___	___
3. Do disclosures include a description of the extraordinary event or transaction and the principal items entering into determination of extraordinary gain or loss?	___	___	___

	Yes	No	N/A
Statement of Cash Flows [SFAS 95 (AC C25)]			
A. Format			
1. Is a statement of cash flows presented for each period for which an income statement is presented?	___	___	___
2. Is the change in cash and cash equivalents presented?	___	___	___
3. Is the definition of a cash equivalent disclosed?	___	___	___
4. Are major classes of gross cash receipts and payments and their sum (net cash flow from operating activities [direct method]) presented?	___	___	___
5. If the direct method is used, is a reconciliation of net income to net cash flow from operating activities provided in a separate schedule?	___	___	___
6. If the indirect method is used, has the same amount for net cash flow from operating activities been reported indirectly by reconciling net income to net cash flow from operating activities?	___	___	___
7. If the indirect method is used, has the reconciliation of net income to net cash flow from operating activities been reported either within the statement of cash flows or provided in a separate schedule, with the statement of cash flows reporting only the net cash flow from operating activities?	___	___	___
B. Content			
1. Are cash receipts and payments for transactions, such as making and collecting loans and acquiring and selling property, classified as cash flows from investing activities?	___	___	___
2. Are cash receipts and payments for transactions, such as obtaining resources from owners, borrowing money, and repaying amounts owed, classified as cash flows from financing activities?	___	___	___
3. Are cash receipts and payments for transactions for all other events, such as producing and delivering goods and providing services, classified as cash flows from operating activities?	___	___	___

Auditor's Report Checklist

.01 Explanation of References:

SAS	=	AICPA Statement on Auditing Standards
AU	=	Reference to section number in AICPA *Professional Standards* (vol. 1)
SSARS	=	AICPA Statements on Standards for Accounting and Review Services
AR	=	Reference to section number in AICPA *Professional Standards* (vol. 2)

.02 Checklist Questionnaire	Yes	No	N/A
1. Does the auditor's report include the appropriate:			
a. Addressee? [SAS 58, par. 9 (AU 508.09)]	___	___	___
b. Date (or dual dates) of the report? [SAS 1, sec. 530.05 (AU 530.05)]	___	___	___
c. A title that includes the word "independent"? [SAS 58, par. 8a (AU 508.08a)]	___	___	___
2. If the accountant is not independent, is a compilation report issued (non-public companies only)? [SAS 26, par. 10 (AU 504.10); SSARS 1, pars. 22 and 38 (AR 100.22 and .38)]	___	___	___
3. Does the reporting language conform with the auditor's standard report on:			
a. Financial statements of a single year or period?	___	___	___
b. Comparative financial statements? [SAS 58, par. 8 (AU 508.08)]	___	___	___
4. Does the report include appropriate language for the following situations:			
a. Only one basic financial statement is presented and there are no scope limitations? [SAS 58, pars. 47–48 (AU 508.47–.48)]	___	___	___
b. Audited and unaudited financial statements are presented in comparative form? [SAS 26, pars. 14–17 (AU 504.14–.17)]	___	___	___

	Yes	No	N/A
5. Is an explanatory paragraph (or other explanatory language) added to the standard report if:			
a. The financial statements are affected by uncertainties concerning future events, the outcome of which is not susceptible of reasonable estimation at the date of the auditor's report? [1] [SAS 58, pars. 16–33 (AU 508.16–.33)]	___	___	___
Note: Consult the Topical Index to the AICPA *Professional Standards* under "Uncertainties" for additional references to specific types of uncertainties.			
b. There is substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time and that conclusion is expressed through the use of the phrase "substantial doubt about its (the entity's) ability to continue as a going concern"? [SAS 64, par. 1 (AU 341.12–.13)]	___	___	___
c. There is a material change between periods in accounting principles or in the method of their application? [SAS 58, pars. 34–36 (AU 508.34–.36)]	___	___	___
d. In an updated report on comparative financial statements, the current opinion on the prior period is different from the one previously expressed? [SAS 58, pars. 77–78 and 81–82 (AU 508.77–.78 and .81–.82)]	___	___	___
e. The prior-period financial statements are audited by a predecessor auditor whose report is not presented? [SAS 64, par. 2 (AU 508.83)]	___	___	___
f. The auditor's opinion is based in part on the report of another auditor? [SAS 1, sec. 543 (AU 543); SAS 58, pars. 12–13 (AU 508.12–.13)]	___	___	___
g. The financial statements contain a departure from a promulgated accounting principle when conformity with GAAP would result in a misleading presentation? [SAS 58, pars. 14–15 (AU 508.14–.15)]	___	___	___

1 At press time, an exposure draft of a proposed amendment to SAS 58 had been released that would eliminate the requirement to add an explanatory paragraph for certain uncertainties. To obtain the latest information on this amendment, call the AICPA Technical Hotline at (800) 862-4272..

Yes No N/A

h. Other information in a document containing audited financial statements is materially inconsistent with information appearing in the financial statements? ___ ___ ___
[SAS 8, par. 4 (AU 550.04)]

i. The auditor decides to emphasize a matter in the report? ___ ___ ___
[SAS 58, pars. 37 (AU 508.37); Interpretation 38 of SAS 1, sec. 410 (AU 9410.17); Interpretation 1 of SAS 57 (AU 9342.03)]

6. Is a qualified opinion or disclaimer of opinion expressed if scope limitations preclude application of one or more auditing procedures considered necessary in the circumstances? ___ ___ ___
[SAS 58, pars. 40–45 (AU 508.40–.45); SAS 19, par. 12 (AU 333.12)]

Note: Consult the Topical Index to the AICPA *Professional Standards* under "Scope of Audit — Limitations" for additional references to specific types of scope limitations that could result in either a qualified or disclaimer of opinion.

7. Is a qualified opinion or adverse opinion expressed if a lack of conformity with GAAP (including inadequate disclosure) is present? ___ ___ ___
[SAS 58, pars. 49–66 (AU 508.49–.66); SAS 32, par. 3 (AU 431.03)]

Note: Consult the Topical Index to the AICPA *Professional Standards* under "Departures from Established Principles", "Adverse Opinions", and "Qualified Opinions" for additional references to specific types of GAAP departures that could result in either a qualified or adverse opinion.

8. Is a qualified or adverse opinion expressed if the entity specifically requests the auditor to report on prior-period financial statements that are incomplete (e.g., prior-period totals only)? ___ ___ ___
[SAS 58, fn. 27 (AU 508, fn. 27)]

9. If a qualified opinion, adverse opinion, or disclaimer of opinion is expressed, are all the substantive reasons for the opinion or disclaimer disclosed and is the reporting language appropriately modified? ___ ___ ___
[SAS 58, pars. 39, 68–69, and 71 (AU 508.39, .68–.69, and .71)]

10. If the auditor is requested to audit IRS Form 990, "Return of Organizations Exempt from Income Tax," is the appropriate report prepared? ___ ___ ___
[Interpretation 2 of SAS 62 (AU 9623.47–.54)]

	Yes	No	N/A
11. If information accompanies the basic financial statements and auditor's report in an auditor-submitted document, does the report on the accompanying information:			
a. State that the audit is performed for the purpose of forming an opinion on the basic financial statements taken as a whole?	___	___	___
b. Specifically identify the accompanying information?	___	___	___
c. State that the accompanying information is presented for purposes of additional analysis and is not a required part of the basic financial statements?	___	___	___
d. State whether the accompanying information is subject to the auditing procedures applied in the audit of the basic financial statements and the appropriate expression of opinion or disclaimer? [SAS 29, pars. 6–11 (AU 551.06–.11)]	___	___	___
12. Is the reporting form and content of SAS 60, paragraphs 9–19, followed when communicating internal control structure related matters noted in an audit?[2] [SAS 60, pars. 9–19 (AU 325.09–.19)]	___	___	___
13. Is the reporting form and content of SAS 72 followed for comfort letters submitted to underwriters and other requesting parties on tax-exempt bond offerings? [SAS 72 (AU 634)]	___	___	___
14. If the auditor is performing a reaudit, does the report not reflect divided responsibility?	___	___	___

[2] Reportable conditions in internal control structure that have not been corrected must be communicated, preferably in writing, to senior management and the board of trustees or its audit committee. [SAS 60]

9.800

FINANCIAL STATEMENTS AND NOTES CHECKLIST SUPPLEMENT FOR CONSTRUCTION CONTRACTORS

Client: ______________________________

Financial Statement Date: ______________________________

This checklist supplement contains only the specialized disclosures required in financial statements of construction contractors. It should be completed in conjunction with the Small Business Disclosure and Reporting Checklist in section 9.700, which contains GAAP disclosures found in a typical small business and the basic audit reporting requirements for an auditor of a small business. Users should carefully consider the need to modify the checklist for any additional disclosure requirements and/or reporting situations encountered during the engagement.

For each item, place a check mark (✓) in the "Yes," "No," or "N/A" (not applicable) column. Add additional explanations such as "N/M" (not material) if necessary.

Explanation of References:

AAG = Reference to section number or appendix in AICPA Audit and Accounting Guide, *Construction Contractors* (loose leaf version with conforming changes as of March 1995)
AC = Reference to section in FASB *Accounting Standards — Current Text*
APB = AICPA Accounting Principles Board Opinion
ARB = AICPA Accounting Research Bulletin
SFAS = FASB Statement of Financial Accounting Standards
SOP = AICPA Statement of Position

Checklist Questionnaire

	Yes	No	N/A
General			
A. Accounting Policies			
1. Is the method of reporting affiliates disclosed relative to:			
a) The consolidation policy when consolidated statements are presented? [ARB 51, par. 5 (AC C51.108)]	___	___	___
b) Investments in joint ventures? [AAG, par. 6.21; APB 18, par. 20 (AC I82.110)]	___	___	___

	Yes	No	N/A
c) Other affiliates? [AAG, par. 6.21; APB 18, par. 20 (AC I82.110)]	___	___	___
2. If the operating cycle exceeds one year, is the range of contract durations disclosed? [AAG, par. 6.21]	___	___	___
3. Income recognition:			
a) Is the method of income recognition (percentage-of-completion or completed-contract) disclosed? [AAG, par. 6.21; SOP 81-1 (AAG App. A), par. 21]	___	___	___
b) If the percentage-of-completion method is used, is the method of computing percentage of completion (such as cost to cost, labor hours, units of output, etc.) disclosed? [AAG, par. 6.21; SOP 81-1 (AAG App. A), par. 45]	___	___	___
c) If the completed-contract method is used:			
(1) Is the reason for selecting that method disclosed? [AAG, par. 6.21]	___	___	___
(2) Are the criteria employed to determine substantial completion disclosed? [SOP 81-1 (AAG App. A), par. 52]	___	___	___
d) Where applicable, is the policy with respect to combining or segmenting contracts disclosed? [SOP 81-1 (AAG, App. A), par. 21]	___	___	___
e) If the basic accounting policy is percentage-of-completion, but the completed-contract method is used for a single contract or group of contracts because the criteria for the use of percentage-of-completion are not present, is such a departure from the basic policy disclosed? [AAG, par. 2.06; SOP 81-1 (AAG App. A), par. 25]	___	___	___
4. Is the following contract cost information disclosed:			
a) The aggregate amount included in contract costs representing unapproved change orders, claims, or similar items subject to uncertainty concerning their determination or ultimate realization, plus a description of the nature and status of the principal items making up such aggregate amounts, and the basis on which such items are recorded (for example, cost or realizable value)? [AAG, par. 6.21; SOP 81-1 (AAG App. A), par. 65]	___	___	___

	Yes	No	N/A
b) The amount of progress payments netted against contract costs at the balance-sheet date? [AAG, par. 6.21]	___	___	___
5. If a loss on a contract is disclosed, is the:			
a) Provision in the income statement included in contract cost (as opposed to a reduction in revenue) or shown separately as a component of the cost included in the computation of gross profit? [SOP 81-1 (AAG App. A), par. 88]	___	___	___
b) Allowance in the balance sheet shown separately as either a liability (a current liability if a classified balance sheet) or deducted from the related accumulated costs? [SOP 81-1 (AAG App. A), par. 89]	___	___	___
6. For costs deferred either in anticipation of future sales (precontract costs) or as a result of an unapproved change order, are the policy of deferral and the amounts involved disclosed? [AAG, par. 6.21]	___	___	___
B. Accounting Changes			
1. Are significant revisions in estimates of the percentage of completion disclosed if the effects are material (recommended, but not a required disclosure)? [AAG, par. 6.22; SOP 81-1 (AAG App. A), par. 84; APB 20, par. 33 (AC A06.132)]	___	___	___
2. For special changes requiring restatement, such as a change in method of accounting for long-term construction contracts, are the following disclosed?			
a) Nature of the change.	___	___	___
b) Justification for the change.	___	___	___
c) Effect on income (and earnings per share, if applicable) in the period of the change for all periods presented. [APB 20, pars. 27–28 (AC A06.123 and A35.114–.115)]	___	___	___

	Yes	No	N/A
C. Related-Party Transactions and Economic Dependency			
1. If it appears that there are affiliated members of a group under common control whose operations are closely interrelated and economically interdependent, are combined financial statements presented, unless consolidated financial statements are appropriate under ARB 51 and SFAS 94 (AC C51)? [AAG, par. 4.03]	___	___	___
2. If combined financial statements are presented, is the following information disclosed?			
a) A statement to the effect that the statements are not those of a separate legal entity.	___	___	___
b) The names and year-ends of the major entities included in the combined group.	___	___	___
c) The nature of the relationship between the companies.	___	___	___
d) The capital of each entity, either in detail by entity if the number of entities is small or, if detailed disclosure is not practicable, in condensed form with an explanation as to how the information was accumulated. [AAG, par. 4.04]	___	___	___
D. Contingencies and Commitments [1]			
1. If backlog information is disclosed, are signed contracts on hand (whose cancellations are not anticipated) disclosed separately from letters of intent? [AAG, par. 6.23]	___	___	___

[1] See disclosures for SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, in the Small Business Checklist, sections B and D. Construction contractors frequently encounter events that give rise to the disclosure that it at least reasonably possible that a change in estimate will occur in the near term due to the large number of estimates inherent in construction contractor financial statements. In addition contractors also experience vulnerabilities due to certain concentrations by having a single source of supplier or only employing union labor. The auditor should pay particular attention to SOP 94-6 disclosures for construction contractors.

	Yes	No	N/A
2. Are disclosure requirements of state statutes (such as "lien" laws restricting certain contract-related funds) considered? [AAG, par. 11.14]	___	___	___
3. If material, are the amounts of claims revenue recognized disclosed in the notes to the financial statements? [SOP 81-1 (AAG, App. A), par. 65]	___	___	___
4. If the reporting entity has retail land sales operations, are the following disclosed regarding improvements:			
a) For major sales areas for each of the next five years:			
(1) Estimated total costs?	___	___	___
(2) Estimated expenditures?	___	___	___
b) Recorded obligations? [SFAS 66, par. 50 (AC Re1.150)]	___	___	___
E. Interest Costs			
1. If interest costs are capitalized for long-term construction contracts, is the total interest incurred and capitalized disclosed for each period presented? [SFAS 34, par. 21 (AC I67.118)]	___	___	___

Balance Sheet

	Yes	No	N/A
A. General			
1. If most of the company's contracts have terms of one year or less but some contracts have significantly longer terms and a classified balance sheet is presented, is there:			
a. A separate classification of contracts that are long term in nature?	___	___	___
b. Disclosure of the items that related to contracts that deviate from the company's normal operating cycle?	___	___	___

	Yes	No	N/A
2. If the operating cycle exceeds one year, an unclassified balance sheet is preferable; however, if an unclassified balance sheet would not result in a meaningful presentation, are the following contract-related items generally classified as current under the operating cycle concept:			
a) Contract-related assets:			
(1) Accounts receivable on contracts (including retentions)?	___	___	___
(2) Unbilled contract receivables?	___	___	___
(3) Costs in excess of billings and estimated earnings?	___	___	___
(4) Other deferred contract costs?	___	___	___
(5) Equipment and small tools specifically purchased for, or expected to be used solely on, an individual contract?	___	___	___
b) Contract-related liabilities:			
(1) Accounts payable on contracts (including retentions)?	___	___	___
(2) Accrued contract costs?	___	___	___
(3) Billings in excess of costs and estimated earnings?	___	___	___
(4) Deferred taxes resulting from the use of a method of income recognition for tax purposes different from the method used for financial reporting purposes?	___	___	___
(5) Advance payments on contracts for mobilization or other purposes?	___	___	___
(6) Obligations for equipment specifically purchased for, or expected to be used solely on, an individual contract regardless of the payment terms of the obligations?	___	___	___
(7) Provisions for losses on contracts (except in circumstances in which related costs are accumulated on the balance sheet, in which case the provision may be deducted from the related accumulated costs)? [AAG, pars. 6.01-.08; SOP 81-1 (AAG App. A), par. 89]	___	___	___

	Yes	No	N/A

B. Receivables

1. Are the amount, nature, and status of billed or unbilled receivables representing unapproved change orders, claims, or similar items subject to uncertainty disclosed, including amounts to be collected after one year? ___ ___ ___
[AAG, par. 6.24]

2. Are receivables representing the recognized sales value of performance under contracts that are neither billed nor billable to customers at the balance-sheet date disclosed with a general description of the prerequisite for billing? ___ ___ ___

   a) Are the amounts to be collected after one year disclosed? ___ ___ ___
   [AAG, par. 6.25]

3. If it appears that revenue from claims is recorded only when the amounts have been received or awarded, is the total of such claims disclosed? ___ ___ ___
[SOP 81-1 (AAG App. A), par. 66; SFAS 5, par. 17 (AC C59.118)]

4. If receivables include amounts maturing after one year, are the following disclosed:

   a) The amount maturing after one year and, if practicable, the amounts maturing in each year? ___ ___ ___

   b) Interest rates on major receivable items, or on classes of receivables, maturing after one year or an indication of the average interest rate or the range of rates on all receivables? ___ ___ ___
   [AAG, par. 6.27]

5. If receivables appear to include amounts representing balances billed but not yet paid by customers under retainage provisions, is disclosure made of the amounts included, the amounts expected to be collected after one year and, if practicable, the years in which the amounts are expected to be collected? ___ ___ ___
[AAG, pars. 6.03 and 6.28]

6. Are retentions receivable not due within the company's operating cycle classified as noncurrent in a classified balance sheet? ___ ___ ___
[AAG, pars. 6.10 and 6.28]

	Yes	No	N/A
7. For receivables from retail land sales operations, are the following disclosed:			
a) Maturities for each of the next five years?	___	___	___
b) Delinquent amounts and methods of determination?	___	___	___
c) Weighted average and range of stated interest rates? [SFAS 66, par. 50 (AC Re1.150)]	___	___	___
C. Investments			
1. Do disclosures relating to significant joint ventures include:			
a) The name of each joint venture, the percentage of ownership, and any important provisions of the joint venture agreement? [AAG, par. 3.27]	___	___	___
b) If the joint venture's financial statements are not fully consolidated with those of the venturer, separate or combined financial statements of the ventures in summary form, including disclosure of accounting principles of the ventures that differ significantly from those of the venturer? [AAG, par. 3.27]	___	___	___
c) Intercompany transactions during the period and the basis of intercompany billings and charges? [AAG, par. 3.27]	___	___	___
d) Liabilities and contingent liabilities arising from the joint venture arrangement? [AAG, par. 3.27]	___	___	___
e) Other disclosures for real estate venture and equity method investments? [SOP 78-9, par. 12; APB 18, par. 20 (AC I82.110)]	___	___	___
2. Is an investment in a joint venture that is presented on the cost or equity method classified as noncurrent unless the venture is expected to be completed and liquidated during the current operating cycle? [AAG, par. 6.11]	___	___	___
3. Are losses in excess of an investment in a joint venture presented as a liability? [AAG, par. 6.11]	___	___	___

	Yes	No	N/A
D. Property and Equipment			
1. If it appears that equipment acquired for a specific contract will be used only on that contract, and will be consumed during the life of the contract or disposed of at the conclusion of the contract, is it classified as a contract cost? [AAG, par. 6.12]	___	___	___
E. Current Liabilities			
1. For billings, costs, and estimated earnings:			
a) If costs and estimated earnings exceed billings on some contracts, and billings exceed costs and estimated earnings on others, are the contracts segregated so that amounts classified as assets include only those on which costs and estimated earnings exceed billings, and amounts classified as liabilities include only those on which billings exceed costs and estimated earnings? [AAG, pars. 6.16-.19; ARB 45, par. 12 (AC Co4.109)]	___	___	___
b) Are billings and related costs and estimated earnings presented separately in the balance sheet or in the notes to the financial statements? [AAG, par. 6.18]	___	___	___
c) Are billings in excess of costs and estimated earnings classified as a current liability (except that billings in excess of total estimated contract completion costs and earnings to date should be classified as deferred income)? [AAG, par. 6.13]	___	___	___
F. Other Liabilities and Deferred Credits			
1. If payables appear to include retentions, do the statements or notes disclose their amount, the portion (if any) expected to be paid after one year and, if practicable, the years in which the amounts are expected to be paid? [AAG, par. 6.03]	___	___	___
2. Are retentions payable that do not appear due within the company's operating cycle classified as noncurrent in a classified balance sheet? [AAG, par. 6.10]	___	___	___

	Yes	No	N/A
3. Are the disclosures and classifications appropriate regarding the income tax effects of differences between financial and tax reporting of:			
a) Long-term construction contracts?	___	___	___
b) Investments in joint ventures and partnerships? [AAG, par. 6.15; SFAS 109, par. 43 (AC I27.142)]	___	___	___
G. Supplemental Disclosures			
1. Is disclosure of the following supplementary information considered by contractors using the percentage-of-completion method:			
a) Earnings from contracts?	___	___	___
b) Contracts completed?	___	___	___
c) Contracts in progress?	___	___	___
d) Backlog information? [AAG, App. G]	___	___	___

9.801 ILLUSTRATIVE AUDITOR'S REPORT AND FINANCIAL STATEMENTS — PERCENTAGE OF COMPLETION METHOD

Independent Auditor's Report

To the Shareholders and Board of Directors
Percentage Contractors, Inc.

We have audited the accompanying consolidated balance sheet of Percentage Contractors, Inc. and subsidiaries as of December 31, 19X8 and 19X7, and the related statements of income and retained earnings and cash flows for the years ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Percentage Contractors, Inc. and subsidiaries at December 31, 19X8 and 19X7, and the results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles.

[*Signature*]

[*City, State*]*
February 18, 19X9

* Optional if office location is on auditor's letterhead.

These illustrative financial statements are intended to provide sample financial statement formats and disclosures for a hypothetical construction contractor; they are not intended to illustrate all disclosures required by GAAP or all of the disclosures covered in the checklist.

9.802

Percentage Contractors, Inc. and Subsidiaries
Consolidated Balance Sheets

December 31, 19X8 and 19X7

Assets	**19X8**	**19X7**
Cash and cash equivalents (including certificates of deposit of $40,300 in 19X8)	$ 304,400	$ 221,300
Contract receivables (Notes 2 and 16)	3,789,200	3,334,100
Costs and estimated earnings in excess of billings on uncompleted contracts (Notes 3 and 16)	80,200	100,600
Inventory, at lower of cost, on a first-in, first-out basis, or market	89,700	99,100
Prepaid charges and other assets (Note 11)	118,400	83,200
Advances to and equity in joint venture (Note 4)	205,600	130,700
Note receivable, related company (Note 5)	175,000	150,000
Property and equipment, net of accumulated depreciation and amortization (Notes 6 and 8)	976,400	1,019,200
	$5,738,900	$5,138,200
Liabilities and Shareholders' Equity		
Notes payable (Note 8)	$ 468,100	$ 578,400
Lease obligations payable (Note 9)	197,600	251,300
Accounts payable (Note 7)	2,543,100	2,588,500
Billings in excess of costs and estimated earnings on uncompleted contracts (Notes 3 and 16)	242,000	221,700
Accrued income taxes	52,000	78,600
Other accrued liabilities	36,600	36,000
Due to consolidated joint venture minority interest	154,200	26,200
Deferred income taxes (Note 13)	619,200	408,000
	4,312,800	4,188,700
Commitments and contingencies (Note 10)		
Shareholders' equity		
Common stock — $1 par value, 500,000 authorized shares, 300,000 issued and outstanding shares	300,000	300,000
Retained earnings	1,126,100	649,500
Total shareholders' equity	1,426,100	949,500
	$5,738,900	$5,138,200

The accompanying notes are an integral part of these financial statements.

9.803

Percentage Contractors, Inc. and Subsidiaries
Consolidated Statements of Income and Retained Earnings

Years Ended December 31, 19X8 and 19X7

Assets	19X8	19X7
Contract revenues earned (Notes 12 and 16)	$22,554,100	$16,225,400
Cost of revenues earned	20,359,400	14,951,300
Gross profit	2,194,700	1,274,100
Selling, general, and administrative expenses	895,600	755,600
Income from operations	1,299,100	518,500
Other income (expense)		
Equity in earnings from unconsolidated joint venture (Note 4)	49,900	5,700
Gain on sale of equipment	10,000	2,000
Interest expense (net of interest income of $8,800 in 19X8 and $6,300 in 19X7)	(69,500)	(70,800)
	(9,600)	(63,100)
Income before income taxes	1,289,500	455,400
Provision for income taxes (Note 13)	662,900	225,000
Net income (per share, $2.09 (19X8); $.77 (19X7))	626,600	230,400
Retained earnings, beginning of year	649,500	569,100
Less dividends paid (per share, $.50 (19X8); $.50 (1987))	(150,000)	(150,000)
Retained earnings, end of year	$ 1,126,100	$ 649,500

The accompanying notes are an integral part of these financial statements.

9.804

Percentage Contractors, Inc. and Subsidiaries
Consolidated Statements of Cash Flows*

Years Ended December 31, 19X8 and 19X7

	19X8	19X7
Cash flows from operating activities		
Net income	$626,600	$230,400
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	167,800	153,500
Gain on sale of equipment	(10,000)	(2,000)
Equity earnings from unconsolidated joint venture	(49,900)	(5,700)
Increase (Decrease) in deferred income taxes	211,200	(75 900)
Increase in contract receivables	(461,400)	(10,200)
Provisions for losses on accounts receivable	6,300	1,100
Net increase in billings related to costs and estimated earnings on uncompleted contracts	40,700	10,500
Decrease (increase) in inventory	9,400	(3,600)
Decrease (increase) in prepaid charges and other assets	(35,200)	16,100
Increase (decrease) in accounts payable	(45,400)	113,200
Decrease in accrued income taxes	(26,600)	(2,400)
Increase in other accrued liabilities	600	21,200
Net cash provided by operating activities	434,100	446,200
Cash flows from investing activities (Note 15)		
Proceeds from equipment sold	25,000	5,000
Acquisition of equipment	(140,000)	(175,000)
Advances to joint venture	(25,000)	(9,700)
Increase in note receivable, related company	(25,000)	(50,000)
Net cash used in investing activities	(165,000)	(229,700)
Cash flows from financing activities (Note 15)		
Principal payments on notes payable	(110,300)	(90,300)
Principal payments under capital lease obligation	(53,700)	(9,700)
Increase in joint venture minority interest	128,000	26,200
Cash dividends paid	(150,000)	(150,000)
Net cash used in financing activities	(186,000)	(223,000)
Net increase (decrease) in cash and cash equivalents	83,100	(7,300)
Cash, beginning of year	221,300	228,600
Cash and cash equivalents, end of year	$304,400	$221,300
Supplementary data:		
Cash equivalents include certificates of deposit with maturities of one to three months		
Interest paid	$ 73,500	$ 75,100
Income taxes paid	$478,300	$313,200

The accompanying notes are an integral part of these financial statements.

* The indirect method is illustrated.

9.805 **Percentage Contractors, Inc. and Subsidiaries**
Notes to Consolidated Financial Statements

Years Ended December 31, 19X8 and 19X7

1. Significant Accounting Policies

Nature of operations and operating cycle. Percentage Contractors, Inc. (the Company) is engaged in a single industry: the construction of industrial and commercial buildings. The work is performed under cost-plus-fee contracts, fixed-price contracts, and fixed-price contracts modified by incentive and penalty provisions. These contracts are undertaken by the Company or its wholly owned subsidiary alone or in partnership with other contractors through joint ventures. The Company also manages, for a fee, construction projects of others.

The length of the Company's contracts varies but is typically about two years. Therefore, assets and liabilities are not classified as current and noncurrent because the contract-related items in the balance sheet have realization and liquidation periods extending beyond one year.

Principles of consolidation. The consolidated financial statements include the Company's majority-owned entities, a wholly owned corporate subsidiary and a 75-percent-owned joint venture (a partnership). All significant intercompany transactions are eliminated. The Company has a minority interest in a joint venture (partnership), which is reported on the equity method.

Revenue and cost recognition. Revenues from fixed-price and modified fixed-price construction contracts are recognized on the percentage-of-completion method, measured by the percentage of labor hours incurred to date to estimated total labor hours for each contract. This method is used because management considers expended labor hours to be the best available measure of progress on these contracts. Revenues from cost-plus-fee contracts are recognized on the basis of costs incurred during the period plus the fee earned, measured by the cost-to-cost method.

Contracts to manage, supervise, or coordinate the construction activity of others are recognized only to the extent of the fee revenue. The revenue earned in a period is based on the ratio of hours incurred to the total estimated hours required by the contract.

Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs, and depreciation costs. Selling, general, and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions, and estimated profitability, including those arising from contract penalty provisions, and final contract settlements may result in revisions to costs and income and are recognized in the period in which the revisions are determined. Profit incentives are included in revenues when their realization is reasonably assured. An amount equal to contract costs attributable to claims is included in revenues when realization is probable and the amount can be reliably estimated.

The asset, "Costs and estimated earnings in excess of billings on uncompleted contracts," represents revenues recognized in excess of amounts billed. The liability, "Billings in excess of costs and estimated earnings on uncompleted contracts," represents billings in excess of revenues recognized.

Estimates. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Property and equipment. Depreciation and amortization are provided principally on the straight-line method over the estimated useful lives of the assets. Amortization of leased equipment under capital leases is included in depreciation and amortization.

Pension plan. The Company has a pension plan covering substantially all employees not covered by union-sponsored plans. Pension costs charged to earnings include current-year costs and the amortization of prior-service costs over 30 years. The Company's policy is to fund the costs accrued.

Income taxes. Construction contracts are reported for tax purposes on the completed-contract method and for financial statement purposes on the percentage-of-completion method. Accelerated depreciation is used for tax reporting, and straight-line depreciation is used for financial statement reporting.[1]

2. Contract Receivables

	December 31, 19X8	December 31, 19X7
Contract receivables		
Billed		
Completed contracts	$ 621,100	$ 500,600
Contracts in progress	2,146,100	1,931,500
Retained	976,300	866,200
Unbilled	121,600	105,400
	3,865,100	3,403,700
Less: Allowances for doubtful collections	75,900	69,600
	$3,789,200	$3,334,100

Contract receivables at December 31, 19X8, include a claim, expected to be collected within one year, for $290,600 arising from a dispute with the owner over design and specification changes in a building currently under construction. The changes were made at the request of the owner to improve the thermal characteristics of the building and, in the opinion of counsel, gave rise to a valid claim against the owner.

1 See FASB Statement No. 109, *Accounting for Income Taxes* (AC I27), for disclosure requirements that are applicable for fiscal years beginning after December 15, 1992.

The retained and unbilled contract receivables at December 31, 19X8, included $38,600 that was not expected to be collected within one year.

3. Costs and Estimated Earnings on Uncompleted Contracts

	December 31, 19X8	December 31, 19X7
Costs incurred on uncompleted contracts	$15,771,500	$12,165,400
Estimated earnings	1,685,900	1,246,800
	17,457,400	13,412,200
Less: Billings to date	17,619,200	13,533,300
	$ (161,800)	$ (121,100)
Included in the accompanying balance sheets under the following captions:		
Costs and estimated earnings in excess of billings on uncompleted contracts	$ 80,200	$ 100,600
Billings in excess of costs and estimated earnings on uncompleted contracts	(242,000)	(221,700)
	$ (161,800)	$ (121,1003)

4. Advances to and Equity in Unconsolidated Joint Venture

The Company has a minority (one-third) interest in a general partnership joint venture formed to construct an office building. All of the partners participate in construction, which is under the general management of the Company. Summary information on the joint venture follows:

	19X8	19X7
Current assets	$ 483,100	$ 280,300
Construction and other assets	220,500	190,800
	703,600	471,100
Less: Liabilities	236,800	154,000
Net assets	$ 466,800	$ 317,100
Revenue	$3,442,700	$ 299,400
Net income	$ 149,700	$ 17,100
Company's interest		
Share of net income	$ 49,900	$ 5,700
Advances to joint venture	$ 50,000	$25,000
Equity in net assets	155,600	105,700
Total advances and equity	$ 205,600	$ 130,700

(For the purposes of illustrative financial statements, the one-line equity method of presentation is used in both the balance sheet and the income statement. However, the pro rata consolidation method is acceptable if the investment is deemed to represent an undivided interest.)

5. **Transactions With Related Party**

The note receivable, related company, is an installment note bearing annual interest at 9¼%, payable quarterly, with the principal payable in annual installments of $25,000, commencing October 1, 19Y0.

The major Company shareholder owns the majority of the outstanding common stock of this related company, whose principal activity is leasing land and buildings. The Company rents land and office facilities from the related company on a ten-year lease ending September 30, 19Y6, for an annual rental of $19,000.

6. **Property and Equipment**

	December 31, 19X8	December 31, 19X7
Assets		
Land	$ 57,500	$57,500
Buildings	262,500	262,500
Shop and construction equipment	827,600	727,600
Automobiles and trucks	104,400	89,100
Leased equipment under capital leases	300,000	300,000
	1,552,000	1,436,700
Accumulated depreciation and amortization		
Buildings	140,000	130,000
Shop and construction equipment	265,600	195,500
Automobiles and trucks	70,000	42,000
Leased equipment under capital leases	100,000	50,000
	575,600	417,500
Net property and equipment	$ 976,400	$1,019,200

7. **Accounts Payable**

Accounts payable include amounts due to subcontractors, totaling $634,900 at December 31, 19X8, and $560,400 at December 31, 19X7, which have been retained pending completion and customer acceptance of jobs. Accounts payable at December 31, 19X8, includes $6,500 that is not expected to be paid within one year.

8. **Notes Payable**[2]

	December 31, 19X8	December 31, 19X7
Unsecured note payable to bank, due in quarterly installments of $22,575 plus interest at 1% over prime	$388,100	$478,400
Note payable to bank, collateralized by equipment, due in monthly installments of $1,667 plus interest at 10% through December 19Y2	80,000	100,000
	$468,100	$578,400

[2] SFAS No. 47, *Disclosure of Long-Term Obligations*, also requires disclosure of maturities of long-term obligations for each of the five years following the balance-sheet date.

At December 31, 19X8 the principal payments due totaled $110,300 annually.

9. Lease Obligations Payable

The Company leases certain specialized construction equipment under leases classified as capital leases. The following is a schedule showing the future minimum lease payments under capital leases by years and the present value of the minimum lease payments as of December 31, 19X8:

Year ending December 31,	
19X9	$ 76,500
19Y0	76,500
19Y1	76,500
Total minimum lease payments	229,500
Less: Amount representing interest	31,900
Present value of minimum lease payments	$197,600

At December 31, 19X8, the present value of minimum lease payments due within one year is $92,250. Total rental expense, excluding payments on capital leases, totaled $86,300 in 19X8 and $74,400 in 19X7.

10. Contingent Liability

The company is aware of a claim that is to be filed against the Company and its bonding company arising out of the failure of a subcontractor of the Company to pay its suppliers. It is estimated that the claim will be for $180,000. Due to uncertainties inherent in the estimation process of determining the amount due from the subcontractor, it is at least reasonably possible that the claim will be further revised in the near term. In the opinion of counsel and management, the outcome of this claim will have a material effect on the Company's financial statements or cash flows.

11. Pension Plan

[Deleted — See FASB Statement No. 87, *Employer's Accounting for Pensions* (AC P16), for current disclosure requirements.]

12. Management Contracts

The Company manages or supervises commercial and industrial building contracts of others for a fee. These fees totaled $121,600 in 19X8 and $1,700 in 19X7 and are included in contract revenues earned.

13. Income Taxes

NOTE: See FASB Statement No. 109, *Accounting for Income Taxes* (AC I27), for additional disclosure requirements that are applicable for fiscal years beginning after December 15, 1992.

The provision for income taxes consists of the following:

	19X8	19X7
Currently payable	$451,700	$300,900
Deferred		
Contract related	204,200	(80,900)
Property and equipment related	7,000	5,000
	$662,900	$225,000

The components of the balance of deferred income taxes were:

	December 31, 19X8	December 31, 19X7
Contract related	$594,000	$389,800
Property and equipment related	25,200	18,200
	$619,200	$408,000

14. Backlog[3]

The following schedule shows a reconciliation of backlog representing signed contracts, excluding fees from management contracts, in existence at December 31, 19X7 and 19X8:

Balance, December 31, 19X7	$24,142,600
Contract adjustments	1,067,100
New contracts, 19X8	3,690,600
	28,900,300
Less: Contract revenue earned, 19X8	22,432,500
Balance, December 31, 19X8	$ 6,467,800

In addition, between January 1, 19X9 and February 18, 19X9, the Company entered into additional construction contracts with revenues of $5,332,800.

15. Noncash Investing and Financing Activities

In 19X7, the Company purchased equipment on open account amounting to $24,000, and incurred capitalized lease obligations for new equipment amounting to $14,000.

16. Customer and Risk Concentrations

In 19X8 and 19X7 respectively, two and three customers accounted for 56% and 48% of contract revenues earned.

[3] The presentation of backlog information, although encouraged, is not a required disclosure.

The Company grants credit, generally without collateral, to its customers, which are located primarily in the New England area. Management believes that its contract acceptance, billing, and collection policies are adequate to minimize potential credit risk. At December 31, 19X8, real estate operators, manufacturers, and others, respectively, accounted for 62%, 30%, and 8% of contract receivables, and 45%, 33%, and 22% of costs and estimated earnings on uncompleted contracts. In 19X8 and 19X7, respectively, 52% and 47% of contract revenues were earned from Connecticut sources.

The Company is exposed to credit loss in the event of nonperformance by its subcontractors. At December 31, 19X8, the Company was contingently liable under guarantees of certain subcontractors' obligations maturing in 19X9 and aggregating $479,000, including a Connecticut subcontractor's obligations amounting to $298,000. Since the Connecticut subcontractor has been having financial difficulties, it is at least reasonably possible that the company will become responsible for the obligations. No amount has been reported in the Company's financial statements regarding the potential obligation.

9.806 ILLUSTRATIVE AUDITOR'S REPORT ON ACCOMPANYING INFORMATION — PERCENTAGE OF COMPLETION METHOD

Independent Auditor's Report on Accompanying Information

To the Shareholders and Board of Directors
Percentage Contractors, Inc.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

[*Signature*]

[*City, State*][4]
February 18, 19X9

[4] Optional if office location is on auditor's letterhead.

9.807

Percentage Contractors, Inc. and Subsidiaries
Schedule 1
Earnings from Contracts

Years Ended December 31, 19X8 and 19X7

	19X8			19X7
	Revenues earned	Cost of revenues earned	Gross profit (loss)	Gross profit (loss)
Contracts completed during the year	$ 6,290,800	$ 5,334,000	$ 956,800	$ 415,300
Contracts in progress at year-end	16,141,700	14,636,900	1,504,800	921,400
Management contract fees earned	121,600	51,800	69,800	1,700
Unallocated indirect and warranty costs	—	46,700	(46,700)	(38,100)
Minority interest in joint venture	—	128,000	(128,000)	(26,200)
Charges on prior year contracts	—	162,000	(162,000)	—
	$ 22,554,100	$ 20,359,400	$ 2,194,700	$1,274,100

Percentage Contractors, Inc. and Subsidiaries
Schedule 2
Contracts Completed

Year Ended December 31, 19X8

Contract		Contract totals			Before January 1, 19X8			During the year ended December 31, 19X8		
Number	Type	Revenues earned	Cost of revenues	Gross profit (loss)	Revenues earned	Cost of revenues	Gross profit loss	Revenues earned	Cost of revenues	Gross profit (loss)
1511	B	$ 5,475,300	$ 4,802,500	$ 672,800	$ 3,223,400	$ 2,932,700	$ 290,700	$ 2,251,900	$ 1,869,800	$382,100
1605	A	695,000	880,900	(185,900)	596,100	558,100	38,000	98,900	322,800	(223,900)
1624	A	140,700	150,700	(10,000)	29,600	31,800	(2,200)	111,100	118,900	(7,800)
1711	A	2,725,100	2,391,700	333,400	1,654,100	1,510,000	144,100	1,071,000	881,700	189,300
1791	B	4,770,100	4,288,900	481,200	3,028,500	2,929,600	98,900	1,741,600	1,359,300	382,300
1792	A	635,000	457,900	177,100	—	—	—	635,000	457,900	177,100
Small contracts		413,400	349,500	63,900	32,100	25,900	6,200	381,300	323,600	57,700
		$14,854,600	$13,322,100	$ 1,532,500	$ 8,563,800	$ 7,988,100	$ 575,700	$ 6,290,800	$5334,000	$956,800

Contract types
A — Fixed-price
B — Cost-plus-fee

9.807

Percentage Contractors, Inc. and Subsidiaries
Schedule 3
Contracts in Progress

December 31, 19X8

Contract		Total contract		From inception to December 31, 19X8						At December 31, 19X8		For the year ended December 31, 19X8		
Number	Type	Revenues	Estimated gross profit (loss)	Revenues earned	Total costs incurred	Cost of revenues	Gross profit (loss)	Billed to date	Estimated cost to complete	Costs and estimated earnings in excess of billings	Billings in excess of costs and estimated earnings	Revenues earned	Cost of revenues	Gross profit (loss)
1845	A	$ 6,750,200	$ 877,000	$ 5,890,500	$ 5,244,500	$ 5,143,900	$ 746,600	$ 5,976,000	$ 628,700	$ 15,100	—	$ 5,664,200	$ 4,984,500	$ 679,700
1847	B	1,471,800	127,100	1,250,400	1,139,800	1,139,800	110,600	1,195,800	204,900	54,600	—	962,800	899,000	63,800
1912	A	451,800	(130,100)	108,600	238,700	238,700	(130,100)	98,100	343,200	10,500	—	98,600	191,500	(92,900)
1937	B	11,125,000	847,900	7,337,900	7,045,500	6,721,100	616,800	7,808,000	3,231,600	—	$ 145,700	6,981,900	6,469,900	512,000
1945	A	3,650,100	497,000	2,395,200	2,061,300	2,061,300	333,900	2,491,500	1,091,800	—	96,300	2,395,200	2,061,300	333,900
Small contracts		51,300	8,400	49,800	41,700	41,700	8,100	49,800	1,200	—	—	39,000	30,700	8,300
		$23,500,200	$ 2,227,300	$17,032,400	$15,771,500	$15,346,500	$ 1,685,900	$17,619,200	$ 5,501,400	$ 80,200	$ 242,000	$16,141,700	$14,636,900	$ 1,504,800

Contract types
A — Fixed-price
B — Cost-plus-fee

9.808 ILLUSTRATIVE AUDITOR'S REPORT AND FINANCIAL STATEMENTS — COMPLETED CONTRACT METHOD

Independent Auditor's Report

The Stockholders and Board of Directors
Completed Contractors, Inc.

We have audited the accompanying balance sheets of Completed Contractors, Inc. as of December 31, 19X8 and 19X7, and the related statements of income and retained earnings and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Completed Contractors, Inc. as at December 31, 19X8 and 19X7, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

[*Signature*]

[*City, State*][5]
February 18, 19X9

[5] Optional if office location is on auditor's letterhead.

9.809

Completed Contractors, Inc.
Balance Sheets

December 31, 19X8 and 19X7

Assets	19X8	19X7
Current assets		
Cash	$ 242,700	$ 185,300
Contract receivables (less allowance for doubtful accounts of $10,000 and $8,000) (Note 2)	893,900	723,600
Costs in excess of billings on uncompleted contracts (Note 3)	418,700	437,100
Inventories, at lower of cost or realizable value on first-in, first-out basis (Note 4)	463,600	491,300
Prepaid expenses	89,900	53,900
Total current assets	2,108,800	1,891,200
Cash value of life insurance	35,800	32,900
Property and equipment, at cost		
Building	110,000	110,000
Equipment	178,000	163,000
Trucks and autos	220,000	200,000
	508,000	473,000
Less accumulated depreciation	218,000	203,200
	290,000	269,800
Land	21,500	21,500
	311,500	291,300
	$2,456,100	$2,215,400

Liabilities and Stockholders' Equity		
Current liabilities		
Current maturities, long-term debt (Note 6)	$37,000	$30,600
Accounts payable	904,900	821,200
Accrued salaries and wages	138,300	155,100
Accrued income taxes	53,000	36,200
Accrued and other liabilities	116,400	55,550
Billings in excess of costs on uncompleted contracts (Note 3)	34,500	43,700
Total current liabilities	1,284,100	1,142,350
Long-term debt, less current maturities (Note 6)	245,000	241,000
	1,529,100	1,383,350
Stockholders' Equity		
Common stock — $10 par value, 50,000 authorized shares, 23,500 issued and outstanding shares	235,000	235,000
Additional paid-in capital	65,000	65,000
Retained earnings	627,000	532,050
Total stockholders' equity	927,000	832,050
	$2,456,100	$2,215,400

The accompanying notes are an integral part of these financial statements.

9.810

Completed Contractors, Inc.
Statements of Income and Retained Earnings

Years Ended December 31, 19X8 and 19X7

	19X8	19X7
Contract revenues	$9,487,000	$8,123,400
Costs and expenses		
Cost of contracts completed	8,458,500	7,392,300
General and administrative expenses	684,300	588,900
Interest expense	26,500	23,000
	9,169,300	8,004,200
Income before income taxes	317,700	119,200
Income taxes	164,000	54,200
Net income ($6.54 and $2.77 per share)	153,700	65,000
Retained earnings		
Balance, beginning of year	532,050	525,800
Dividends paid ($2.50 per share)	(58,750)	(58,750)
Balance, end of year	$627,000	$532,050

The accompanying notes are an integral part of these financial statements.

9.811

Completed Contractors, Inc.
Statements of Cash Flows
(Indirect Method)

Years Ended December 31, 19X8 and 19X7

	19X8	19X7
Cash flows from operating activities		
Net income	$ 153,700	$ 65,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	54,800	50,300
Provisions for losses on accounts receivable	2,000	1,000
Increase in contract receivables	(172,300)	(37,500)
Decrease (increase) in costs in excess of billings on uncompleted contracts	18,400	(49,100)
Decrease (increase) in inventories	27,700	(3,400)
Decrease (increase) in prepaid expenses	(36,000)	16,500
Increase in cash value of life insurance	(2,900)	(2,685)
Increase in accounts payable	83,700	24,600
Increase (decrease) in accrued salaries and wages	(16,800)	24,300
Increase (decrease) in accrued income taxes	16,800	(6,300)
Increase (decrease) in accrued and other liabilities	60,850	(33,100)
Decrease in billings in excess of costs on uncompleted contracts	(9,200)	(16,300)
Net cash provided by operating activities	180,750	33,315
Cash flows from investing activities		
Purchase of property and equipment	(75,000)	(53,500)
Net cash used in investing activities	(75,000)	(53,500)
Cash flows from financing activities		
Proceeds from issuance of long-term debt	44,000	68,000
Principal payments on long-term debt	(33,600)	(15,500)
Cash dividends paid	(58,750)	(58,750)
Net cash used in financing activities	(48,350)	(6,250)
Net increase (decrease) in cash	57,400	(26,435)
Cash, beginning of year	185,300	211,735
Cash, end of year	$ 242,700	$ 185,300
Supplementary data:		
Interest paid	$ 28,000	$ 25,000
Income taxes paid	$ 147,200	$ 52,000

The accompanying notes are an integral part of these financial statements.

9.812

Completed Contractors, Inc.
Notes to Financial Statements

Years Ended December 31, 19X8 and 19X7

1. Significant Accounting Policies

Nature of Operations. The Company is a heating and air-conditioning contractor for residential and commercial properties. Work on new structures is performed primarily under fixed-price contracts. Work on existing structures is performed under fixed-price or time-and-material contracts.

Revenue and cost recognition. Revenues from fixed-price construction contracts are recognized on the completed-contract method. This method is used because the typical contract is completed in two months or less and financial position and results of operations do not vary significantly from those which would result from use of the percentage-of-completion method. A contract is considered complete when all costs except insignificant items have been incurred and the installation is operating according to specifications or has been accepted by the customer.

Revenues from time-and-material contracts are recognized currently as the work is performed.

Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs, and depreciation costs. General and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Claims are included in revenues when received.

Costs in excess of amounts billed are classified as current assets under costs in excess of billings on uncompleted contracts. Billings in excess of costs are classified under current liabilities as billings in excess of costs on uncompleted contracts. Contract retentions are included in accounts receivable.

Inventories. Inventories are stated at cost on the first-in, first-out basis using unit cost for furnace and air-conditioning components and average cost for parts and supplies. The carrying value of furnace and air-conditioning component units is reduced to realizable value when such values are less than cost.

Pension plan. The Company has a pension plan covering all employees not covered by union-sponsored plans. Pension costs charged to income include current-year costs and the amortization of prior-service costs over 30 years. The Company's policy is to fund the costs accrued.

Property and equipment. Depreciation is provided over the estimated lives of the assets principally on the declining-balance method, except on the building where the straight-line method is used.

2. Contract Receivables

	December 31, 19X8	December 31, 19X7
Completed contracts, including retentions	$ 438,300	$ 408,600
Contracts in progress		
Current accounts	386,900	276,400
Retentions	78,700	46,600
	903,900	731,600
Less: Allowance for doubtful accounts	10,000	8,000
	$ 893,900	$ 723,600

Retentions include $10,300 in 19X8, which are expected to be collected after 12 months.

3. Costs and Billings on Uncompleted Contracts

	December 31, 19X8	December 31, 19X7
Costs incurred on uncompleted contracts	$ 2,140,400	$ 1,966,900
Billings on uncompleted contracts	1,756,200	1,573,500
	$ 384,200	$ 393,400
Included in accompanying balance sheets under the following captions:		
Costs in excess of billings on uncompleted contracts	$ 418,700	$ 437,100
Billings in excess of costs on uncompleted contracts	(34,500)	(43,700)
	$ 384,200	$ 393,400

4. Inventories

	December 31, 19X8	December 31, 19X7
Furnace and air-conditioning components	$ 303,200	$ 308,700
Parts and supplies	160,400	182,600
	$ 463,600	$ 491,300

Furnace and air-conditioning components include used items of $78,400 in 19X8 and $71,900 in 19X7 that are carried at the lower of cost or realizable value.

5. Income Taxes

A reconciliation of the statutory federal tax rate to the effective tax rate on pretax income is as follows:

	Year Ended December 31, 19X8	19X7
Statutory federal tax rate	40.0%	46.0%
State and local taxes, less federal effect	11.4	4.4
Other	.2	(4.9)
Total effective tax rate	51.6%	45.5%

6. Long-Term Debt

	December 31, 19X8	December 31, 19X7
Notes payable, bank		
Notes due in quarterly installments of $2,500, plus interest at 8%	$ 140,000	$ 150,000
Notes due in monthly installments of $1,500, plus interest at prime plus 1½%	87,000	58,000
Mortgage payable		
Due in quarterly payments of $3,500, including interest at 9%	55,000	63,600
	282,000	271,600
Less: Current maturities	37,000	30,600
	$ 245,000	$ 241,000

As of December 31, 19X8, long-term debt matures as follows:

19X9	$ 37,000
19Y0	38,000
19Y1	39,000
19Y2	40,000
19Y3	37,000
Thereafter through 19Y5	91,000
	$282,000

7. Pension Plans

[Deleted — See FASB Statement No. 87, *Employers' Accounting for Pensions* (AC P16), for current disclosure requirements.]

8. Backlog

The estimated gross revenue of work to be performed on signed contracts was $4,691,000 at December 31, 19X8, and $3,617,400 at December 31, 19X7. In addition to the backlog of work to be performed, there was gross revenue, to be reported in future periods under the completed-contract method used by the Company, of $2,460,000 at December 31, 19X8, and $2,170,000 at December 31, 19X7.

9. Risk Concentrations

The Company's contract revenues and receivables, and costs on uncompleted contracts, are each divided approximately equally between residential and commercial sources, which are primarily located within 50 miles of its home office in Millburn, Connecticut. The Company generally requires a deposit of up to 20% of the contract price before commencing work, and bills the balance upon completion.

9.900

Financial Statement Control Form

Client: ______________________________

Financial Statement Date: ______________________________

INSTRUCTIONS: This form should be prepared by the in-charge to accompany the draft of the financial statements and report. Final disposition is the responsibility of the engagement partner. Each step should be initialed and dated as it is completed, or checked "N/A." Step 8 must be initialed and dated by the engagement partner in order to release the financial statements and report.

SERVICE PERFORMED:

AUDIT ☐ COMPILATION ☐

REVIEW ☐ OTHER (describe): ______________________________

	Performed By		
	Initials	**Date**	**N/A**
1. Submit financial statements and report to typing.	________	________	☐
2. Proofread the financial statements and report.	________	________	☐
3. Resubmit the financial statements and report for correction.	________	________	☐
4. Submit to technical reviewer, if applicable.	________	________	☐
5. Resubmit the financial statements and report for corrections.	________	________	☐
6. Foot and crossfoot all pages.	________	________	☐
7. Submit to engagement partner for final review.	________	________	☐
8. Release the financial statements and report.	________	________	

Number of Copies:

Bound: ____________ Unbound: ____________

Other: ______________________________

Construction Contractor
Industry – Advisory
Services

CHAPTER 10

THE CONSTRUCTION INDUSTRY ADVISORY SERVICES

Table of Contents

Table of Contents (Continued)

CHAPTER 10

THE CONSTRUCTION INDUSTRY ADVISORY SERVICES

10.000 INTRODUCTION

10.001 In connection with providing auditing and accounting services, accountants are in an ideal position to identify client problems and offer suggestions to improve their operations and profitability. The construction industry offers ample opportunities to provide this kind of service.

10.002 The AICPA publication "Advisory Comments for Growth and Profitability — A Guide for Accountants and Consultants" notes that:

> Changes in our economy, business practices, and technology have dramatically increased competition for audit clients. These trends have altered the traditional relationship between client and auditor. Increasingly, the auditor is assuming an additional role of business advisor. This role provides a competitive advantage by enhancing the auditor's value to the client.

10.003 In some instances "value added" suggestions may be so extensive they require a separate consulting engagement. This chapter discusses both situations: a) identifying areas for improvement and communicating suggestions, and b) possibly turning those suggestions into separate engagements.

10.004 The AICPA publishes a number of practice aids, training courses and other publications for accountants who provide consulting services to their construction clients. To obtain a copy of the current AICPA catalog, call 1-800-862-4272. An on-line version is also available on the Accountant's Forum.

10.100 VALUE ADDED SERVICES: IDENTIFYING NEEDS AND MAKING RECOMMENDATIONS

10.101 The effective identification of client needs and possible consulting services will require the involvement of the engagement partner. Most needs are identified during audit planning, the final analytical review of the financial statements, or periodic, informal contact with the client's management. Most needs are **not** identified by the engagement partner during a detailed review of the audit workpapers.

10.102 In identifying needs, engagement partners may focus on two broad areas: a) construction management and operations, and b) accounting and finance. Appendix 10-1 is a questionnaire that may be used by the accountant to identify the needs of a contractor client.

Construction Management and Operations

10.103 Construction management is comprised of the following critical functions:

- Obtaining contracts
- Estimating job costs
- Selecting subcontractors and suppliers
- Tracking the job's progress
- Reviewing the job's profitability

10.104 **Obtaining Contracts.** Construction contracts are obtained in one of two ways:

- *Negotiated contracts* are cost-plus-fixed-fee arrangements in which the contractor works closely with the developer, owner, or (in the case of a subcontractor) the general contractor. Since bidding does not occur under negotiated contracts, there is no competition with regards to pricing. Under this type of arrangement, profits are virtually guaranteed. Unfortunately, negotiated contracts are few and far between. Generally, only contractors who perform highly specialized work, who have a strong reputation for performing quality work, or who have a long-standing relationship with the customer are able to secure negotiated work.
- *Bid contracts* are awarded through a competitive bidding process in which the developer (or general contractor) obtains bids from a number of construction contractors and compares the price and other factors before awarding the contract. The contractor's bid price is not the only key factor in procuring a contract. The quality and reputation of the contractor often plays a large role in determining which firm will be awarded the contract. Under this type of arrangement, profits are **not** guaranteed. Due to the competition for contracts, profits may be minimal and are dependent on actual job costs and contractor efficiency.

10.105 Accountants should inquire about the methods the contractor uses to obtain new jobs and customers. Accountants who have a number of construction contractor clients and who understand the industry in their geographical area are in a good position to advise their clients. Consider the following:

- Some contractors miss opportunities to obtain negotiated contracts or pursue negotiated work. Accountants should be alert to these opportunities. Contractors who obtain a large amount of repeat business are often in a position to secure negotiated work.
- In a bid contract situation, the contractor should compare its bid to the others submitted to know if its estimates were comparable. A low bid could indicate that something was missed when estimating total costs of the project or that additional potential profit was lost. A high bid could indicate that the contractor has some inherent inefficiencies built into its process. For example, its equipment may be outdated, or the contractor may have chosen an inefficient way to deploy its labor force. Understanding why its bid was not selected will help the contractor take the appropriate corrective action.

10.106 Estimating Job Costs. One of the most critical skills required of a successful contractor is the ability to estimate job costs. An accurate and reliable job cost estimate requires:

- Accurate pricing of the materials and labor, including subcontractors.
- The ability to schedule each major phase of the job within a reasonable time frame, including coordinating the work of subcontractors.
- The active involvement of field personnel responsible for supervising the work.
- Management reviews of the cost estimates.

10.107 Selecting Subcontractors and Suppliers. All contractors need to build a network of subcontractors and suppliers that:

- Have a reputation for performing high-quality work,
- Are in sound financial condition, and
- Are able to complete projects timely and at a reasonable price.

10.108 Such a network helps ensure not just an accurate bid for the job, but also that the job will be performed according to the terms of the contract.

10.109 The process of awarding contracts to subcontractors is called the "buy out" process. As with obtaining contracts, the contractor awards contracts to subcontractors and suppliers through either a negotiated or bid process. Management should ensure that the process of selecting and awarding contracts to subcontractors and suppliers is properly controlled. The process should include the following:

- *Central Approval*. There should be a central approval process to ensure that volume discounts and reliable and viable subcontractors and suppliers are selected.
- *In-Depth Knowledge*. For each subcontractor and supplier being considered, there should be in-depth knowledge of how subcontractors and suppliers priced their bids, the track records of the companies, and their financial strength.
- *Consideration of All Factors*. No contractor should award a bid based only on price. Too low a bid could result in the subcontractor or supplier failing to complete its phase of the contract on time and in accordance with the owner's specifications.

10.110 Preconstruction Services. Often, the contractor has an opportunity to perform preconstruction services. The performance of these services enhances the contractor's reputation and can result in higher profits on the contract. Preconstruction services may include:

- Planning and timing of each phase of the project,
- Assisting in obtaining the necessary permits,
- Resolving environmental issues,
- Meeting with key subcontractors and suppliers to promote teamwork, and
- Reviewing the architect's plans and suggesting changes or identifying potential change orders.

10.111 Contractors should assess the cost and benefit of providing preconstruction services. In making that assessment, the contractor should consider preconstruction services provided by other construction companies. The contractor may enhance its reputation and competitive edge by promoting the benefits of its preconstruction services.

10.112 Job Tracking and Measuring Profitability. Managing a construction job involves a variety of duties, including:

- Coordinating the subcontractors, suppliers and the general contractor/developer,
- Tracking the progress of the job and identifying any potential problems before they occur,
- Maintaining job-site safety and quality control,
- Preparing and maintaining job site documentation,
- Preparing and tracking change orders through the approval process, and
- Closing out the job.

10.113 An accurate and thorough job cost system is a critical element for monitoring the progress of a job. Job cost systems should produce reports that reflect costs incurred to date, committed costs, and estimated costs to complete for each job. The production of these reports requires cooperation between the accounting and construction departments.

10.114 The accountant can evaluate the effectiveness of the job management through periodic reviews of job profitability. The accountant should compare job profitability to industry standards and determine through analytical procedures and interviews with key company personnel where the contractor's job management process and procedures need strengthening.

10.115 The accountant may provide a wide range of services with respect to change orders, such as reviewing the contractor's procedures for recognizing, quantifying, documenting, submitting, and tracking change orders and comparing this process to other clients in the industry. Additionally, the accountant may help the contractor:

- Quantify change orders,
- Calculate amounts due the contractor because of owner delays, and
- Assist in negotiating the approval of change orders.

Accounting And Finance

10.116 General and Administrative Expense Budgets. A contractor should prepare a budget of general and administrative expenses that covers at least one year. To prepare a budget, the contractor should first identify the fixed overhead costs. Next, the contractor should concentrate on variable overhead costs. These costs should be projected based on the company's plans for the next year, industry standards, and comparisons to prior years.

10.117 The contractor should periodically compare actual costs to budgeted amounts for each line item and analyze any significant variances.

10.118 A comparison of actual costs to industry standards will provide information on how the contractor is performing relative to its peers. Appendix 10-2 at the end of this chapter includes excerpts from the Construction Financial Management Association's (CFMA) "1994 Construction Industry Annual Financial Survey." More detailed information based on the type of work performed, volume and geographic region is also available from the CFMA.

10.119 **Worker's Compensation Insurance.** Worker's compensation insurance can be one of the contractor's largest expenses. The cost of worker's compensation insurance is based on the type of work performed and number of hours in each job function. Costs can be controlled by ensuring that the employees are properly classified by function. For example, if an employee works as a structural steel worker for 35 hours per week and provides purely administrative support for the other 5 hours, the contractor's internal control structure should be able to track both functions since the workers compensation cost for the steel worker function would be significantly higher than for the administrative function.

10.120 Currently, a number of contractors are becoming self-insured for a portion of the worker's compensation coverage. The decision to self-insure is based primarily but not exclusively on a cost-benefit analysis. Other items that need to be considered include:

- The effectiveness of safety programs
- The client's willingness to increase their risk
- A comparisons of worker's compensation costs to other companies
- The amount required by state legislation to be placed in escrow.

10.121 **Job Cost Systems.** A critical element of good management controls for a contractor is a timely, accurate and thorough job costing system. Job costing systems should produce reports that reflect costs incurred to date, committed costs, and estimated costs to complete for each job.

10.122 The production of accurate job cost reports requires cooperation between the accounting and construction management function. Job cost reports should be used by management to track the progress of jobs, make management decisions, and follow up on potential problems.

10.123 **Accounts Receivable**. Accounts receivable for construction contractors are comprised of current contract receivables that are typically billed monthly and retentions (which are usually computed as a percentage of the total work completed to date and held by the owner until the end of the job).

10.124 The accountant should review the contractor's system for collecting past due accounts receivables and for determining any necessary allowance. In addition, the accountant should review the contractor's process for monitoring retentions to ensure retentions are properly calculated and paid on a timely basis.

10.125 **Accounts Payable.** Accounts payable for construction contractors are comprised of billings by subcontractors, suppliers and vendors, and retentions payable to subcontractors (usually computed as a percentage of the total work completed to date and held until the job is completed).

10.126 The contractor should have a process to ensure that the billings submitted by subcontractors and suppliers are properly approved, that the invoices are accurate, and the amounts billed are reasonable in relation to the percentage of the job's completion. Amounts submitted by subcontractors and suppliers should be billed to the general contractor/developer. Payments to the subcontractors and suppliers should be based on amounts approved by the general contractor/developer.

10.127 Cash Management. Billing arrangements in the construction industry vary and are usually specified in the contract. Progress billings or customer advances on contracts provide a significant source of financing for most construction contractors. A contractor ordinarily will try to assign a higher relative bid price to job components that are expected to be completed early in the job. This practice (often referred to as "front-end loading") accelerates the contractor's cash receipts on a contract and represents a significant financing strategy for many contractors. However, this practice also means that cash inflows at the end of the contract may be less than cash requirements. Thus, appropriate controls and cash budgets are an important part of financial management.

10.128 Cash flow should be evaluated on each contract. Recurring "under billings" may indicate the contractor is not properly monitoring billings and collections for a particular job or that a loss has been incurred on the job. For example, if the job is a fixed price contract and the contractor goes over budget, a failure to properly record the loss may result in unusually large underbillings.

10.129 Maintaining a strong cash position will enhance the contractor's bonding ability. The contractor should invest idle cash in suitable investments that balance risk, return and liquidity. The contractor should also establish procedures to ensure that cash discounts are taken whenever possible.

10.130 Working Capital. Working capital is a key factor in whether a bonding or loan application is accepted or rejected. It is important for the contractor, with the guidance of the accountant, to take appropriate steps in maintaining a strong working capital position, particularly at the end of a reporting period.

10.131 There are a number of ways to strengthen working capital, including:

- Borrowing against the cash surrender value of life insurance,
- Collecting related-party account receivables before the financial-statement date,
- Avoiding prepaid assets that will be discounted by lenders and bonding companies,
- Obtaining long-term debt secured by property and equipment, and
- Delaying capital withdrawals.

10.200 TYPICAL ADVISORY ENGAGEMENT OPPORTUNITIES

10.201 This section focuses on advisory services that are structured as separate engagements. In some instances, the client will approach the accountant with a clearly identified need for advisory services. An example of this is when the contractor becomes involved in a lawsuit and needs litigation support services.

10.202 More often, the contractor relies on the accountant to identify and articulate the need for additional services. For example, during an audit, the auditor may note that some of the client's employees were misclassified for purposes of calculating worker's compensation insurance premiums. This may lead to a management letter comment and recommendation. In turn, the client may discover their computer software is not flexible enough to track employees who perform several functions. This may lead to a separate consulting engagement for the auditor to help the client choose a new software package.

10.203 The following are typical advisory service engagements performed for construction contractors:

- Developing a labor cost system
- Determining whether to purchase, lease or rent equipment
- Cash flow planning
- Automating construction contractor systems
- Workers compensation insurance review

10.204 The applicable professional standard for providing business consulting services is the Statement on Standards for Consulting Services No. 1, *Consulting Services: Definitions and Standards* (SSCS No. 1.) As described in the Statement, consulting services may include:

- *Consultations,* in which the accountant's function is to provide counsel in a short time frame. This service is based mostly on existing personal knowledge about the client, the circumstances, the technical matters involved, client representations, and the mutual intent of the parties. Examples include: reviewing and commenting on a client-prepared business plan and suggesting computer software for further client investigation.
- *Advisory services,* in which the accountant's function is to develop findings, conclusions, and recommendations for client consideration and decision making. Examples of advisory services are an operational review and improvement study, analysis of an accounting system, assistance with strategic planning, and definition of requirements for an information system.
- *Implementation services,* in which the accountant's function is to put an action plan into effect. Client personnel and resources may be pooled with the accountant's to accomplish the implementation objectives. The accountant is responsible to the client for the conduct and management of engagement activities. Examples of these services include: providing computer system installation and support, executing steps to improve productivity, and assisting with the merger of organizations.
- *Transaction services,* in which the accountant's function is to provide services related to a specific client transaction, generally with a third party. Examples of transaction services are insolvency services, valuation services, preparation of information for obtaining financing or bonding, analysis of a potential merger or acquisition, and litigation services.
- *Staff and other support services,* in which the accountant's function is to provide appropriate staff and possibly other support to perform tasks specified by the client. The staff provided will be directed by the client as circumstances require. Examples of staff and other support services are data processing facilities management, computer programming, bankruptcy trusteeship, and controllership activities.

- *Product services,* in which the accountant's function is to provide the client with a product and associated professional services in support of the installation, use or maintenance of the product. Examples of product services are the sale and delivery of packaged training programs, the sale and implementation of computer software, and the sale and installation of systems development methodologies.

Developing a Labor Cost System

10.205 A sound labor costing system is critical to ensure that management controls and monitors its labor activities in each phase. A contractor's labor force is comprised of its employees and the subcontractors. One of the keys to a profitable project is the contractor's choice of how to deploy these two components in each phase of the project. The labor costing system should allow the contractor to determine whether to use its own labor force, a subcontractor, or a combination of both.

10.206 There are both risks and benefits to using subcontractors. One risk is that the general contractor has less control over the subcontractor's work force than it does over its own. On the other hand, a benefit to the general contractor is that they are relieved of the burden of having to hire qualified laborers and negotiate their wages. A good job costing system can help management determine whether and when to use subcontractors for all or a portion of the job.

10.207 In general, the labor cost system should enable management to determine the current status of the contract and allow for early corrective action. Additionally, the system should be able to:

- Determine and quantify budgeted amounts.
- Capture actual costs to budgeted amounts accurately and timely,
- Analyze significant variances from budget, and
- Forecast total costs of the contract.

10.208 **Engagement Activities.** To assist the client in developing a labor cost system, the accountant should establish objectives and guidelines for the system. First, the accountant should gain a thorough understanding of the client's construction activity, the nature of its projects, situations in which the contractor uses its own labor force, and any expected changes in the staffing of the contract.

10.209 The system must be flexible enough to provide for the labor force mix in the current phase of the contract, plus any changes in other phases of the contract. The analysis of labor costs requires that budgeted labor costs, actual labor costs, and the percentage of the project completed be input into the system.

- *Budgeted time and costs.* Upon being awarded a construction contract, the contractor determines the specific phase of the job for which it intends to use its own labor force. The phases of the job should be clearly identified as distinct portions to be completed. The total budgeted hours of each phase are input into the system.
- *Actual time and costs.* The actual labor hours and dollars should be input into the system weekly. Total hours and dollars to date should be determined for each phase of the contract.

- *Labor analysis*. The contractor should compare budgeted labor hours and dollars to actual. To make this comparison while a phase is in process, the percentage of completion of the phase must be estimated. This estimate is normally made by the job superintendent, job foreman, or a project manager.

The comparison of budget to actual will enable the contractor to determine whether the phase is over or under budget and, if necessary, take corrective action. The comparison should consider both labor hours and dollars since the relationship may not be directly proportional. For example, a job phase may be exactly on budget in hours but over budget in dollars, which may indicate that the budget did not anticipate a wage increase, that overqualified (and higher paid) laborers were used for the job, or that the laborers were required to work overtime (and thus paid at a higher rate) because of poor scheduling.

Purchase, Lease, or Rental of Equipment

10.210 The contractor must often decide whether to purchase, lease, or rent certain equipment. Accountants frequently help their clients analyze the alternatives and recommend a course of action.

10.211 Engagement Activities. The accountant should consider all costs associated with purchasing, leasing, or renting the equipment.

- *Purchase*. Costs include: purchase price, costs of financing and operating expenses such as insurance, gas and oil, repairs and maintenance, and depreciation. If the purchase is financed with debt, the accountant should consider the impact this will have on the contractor's bonding requirements and capacity.
- *Lease*. In addition to monthly lease payments, the lessor may also be responsible for taxes, insurance and certain maintenance expenses. These additional costs should be described in the lease agreement.
- *Rent*. The costs of renting the equipment is best analyzed on a job-by-job basis. The main components of this estimate are the number of days the equipment will be used, the optimum rental period (day, week, month), and the operating expenses of the equipment.

10.212 The kind of equipment under review is also significant. The accountant should consider whether equipment required for a certain job is so specialized that it could not be used for other projects, or whether the equipment could be used for most of the work that the contractor performs.

10.213 The impact of a lease or purchase on the contractor's cash flow should be considered. A lease/purchase of equipment may reduce the contractor's working capital or adversely affect the debt-to-equity ratio. The accountant can help the client compile the data necessary to assess cash flow and determine the manner in which it will be analyzed and decisions made.

Cash Flow Planning

10.214 A contractor's method of operations or business philosophy has a significant impact on its cash flow requirements. A contractor that subcontracts substantially all of its construction activity typically does not have job-related cash flow problems since it pays subcontractors only after it receives payment from the property owner. In addition, retainages are normally withheld from subcontractors to correspond with retainages withheld by the owners from the general contractor. On the other hand, contractors that perform much of the work themselves and purchase materials directly must ensure they have adequate cash flows to accommodate their needs. For these contractors, cash flow planning is essential.

10.215 Engagement Objectives. The primary objectives of this type of an engagement are to estimate the contractor's cash flow, determine whether it is sufficient to meet the contractor's anticipated needs, and develop ways to improve it. Contractors need cash flow planning on an overall basis and for each individual contract.

10.216 Practitioners who prepare or report on a cash flow projection or forecast are required to comply with the guidance contained in the *Guide for Prospective Financial Information*, published by the AICPA.

10.217 Engagement Issues. The way in which a contractor deploys its labor force can have a significant impact on its cash flow.

- *Employees*. Contractors that use their own work force and are responsible for purchasing materials and supplies will need to consider the timing of significant cash outflows, including payroll and related fringe benefits which are generally paid weekly, and materials and supplies invoices which are normally due 30 days after delivery. In addition, contractors typically bill owners at the end of each month, but may not be paid for another 30 days. Consequently, the contractor must be able to fund at least 60 days of job costs and expenses for each job.
- *Subcontractors*. A contractor that subcontracts substantially all of its construction activity typically does not have job-related cash flow problems since it pays subcontractors only after it receives payment from the property owner. In addition, retainages are normally withheld from subcontractors to correspond with retainages withheld by the owners from the general contractor.

10.218 The contractor needs to make sure each project is properly financed before incurring significant costs. If the project is not adequately financed, the project may run out of funds before completion. The contractor's inability to meet payroll needs or subcontractor and material obligations will have an adverse impact not only on the construction project, but also on the contractor's business reputation. The contractor should ensure that sufficient cash flow is available from operations or bank financing to fund the project costs and all general and administrative expenses.

10.219 Engagement Benefits. The primary benefit of a cash flow planning engagement is that it helps the contractor anticipate cash flow and take any required corrective action, such as using working capital lines of credit or securing additional capital. To avoid having to raise funds to pay laborers and suppliers, the contractor may consider changing its method of operations on one or more jobs from providing its own labor and materials to using subcontractors. Although this alternative may reduce profits, it may be the only way the contractor can successfully complete each job.

Automating Construction Contractor Systems

10.220 Automated systems can help a construction contractor respond to pressures to expand service levels, reduce costs, and meet scheduled dates. In today's competitive environment, a contractor's profitability, and even survival, depend on its ability to respond effectively to these pressures. However, automation has a significant impact on a firm's operations, clients, and suppliers. For example, automation introduces new procedures and methods to employees and affects inventory transactions with suppliers. In addition, the majority of the computer system requirements are defined by the contractor/client relationship.

10.221 To respond to the pressures caused by rapid changes and competition in the construction industry, firms are seeking better ways to control costs and manage projects. Efficient project management and labor cost control gives construction firms an advantage over their competitors. Consequently, contractors are constantly evaluating new equipment, materials, methods, structures, financing alternatives, and operating policies.

10.222 As with many commercial enterprises, accountants frequently find that their construction contractor client's hardware and software systems are out-of-date or underused. Because of their need for detailed and timely reports of job costs and budgets, construction contractors should take advantage of the latest hardware and software technology. The knowledge accountants gain of the client's information systems during the normal course of an audit engagement and through their knowledge of other client's systems allow them to make useful suggestions for greater and more efficient use of technology.

10.223 Engagement Objectives. The primary objective of this kind of engagement is to develop an accounting system that is efficient, has good internal controls, and provides the information necessary to monitor job costs, company operations, and cash flow.

10.224 Engagement Issues. The increased use of information technology has increased the need for security and job segregation. Construction companies generally benefit from a highly integrated system that allows the simultaneous posting of information to several journals and records. An integrated system helps ensure accuracy and reduces costs, but it also increases the need for good internal control policies and procedures. For example, a single computer operator or bookkeeper can manage the information that, under a manual system, may have been assigned to more than one person. This situation presents an opportunity for the accountant to help the client establish the proper controls.

10.225 Systems Requirements and Selection. Construction accounting systems are often a prime area for improvement. The average life of a system is five years because of rapid advances in technology. Many clients do not implement their systems fully or take advantage of advanced features. Therefore, system consulting can often yield the highest value for the client.

10.226 Engagement Procedures. System analysis should be broken down by functional area such as:

- Design
- Estimating
- Accounts Payable
- Payroll
- Job Cost
- General Ledger

- Progress Billing
- Accounts Receivable

10.227 The requirements for each section in software-specific terms such as microcheck printing or central paymaster should be listed.

10.228 After reviewing the system requirements, the search for software should begin. The construction industry has hundreds of vendors running on a dozen different platforms competing for business. The client's requirements should be matched to vendor features.

10.229 The accountant should highlight those requirements that can't be met by software without modification. Many vendors claim that end user reporting needs can be fully satisfied by a report writer module. Report writer software is often difficult to use and may require the contractor to understand complex database structure and programmer-level commands. Most contractors don't have the in-house expertise to create the complicated reports necessary to satisfy end users.

10.230 Unless the contractor is working on a very large customized system, vendor negotiation is negligible. Most vendors are required to sell software at a minimum price. The contractor should seek concessions in installation and training fees instead.

10.231 Implementation is critical to the success of the new software. If the implementation is long and painful for the client, the software will be viewed as worse than the old software. Many accountants have ongoing contracts with contractors to help them maintain and implement the new software. Most implementations last from six to twelve months.

10.232 The accountant should develop a high level of expertise before undertaking systems engagements. Many factors contribute to a successful and smooth implementation of new software. Most of these are the responsibility of the client and vendor, but the accountant can easily become the scapegoat for selecting a vendor who fails to live up to expectations.

10.233 **Engagement Benefits.** The primary benefit of an engagement of this type is the development of an accounting system that will provide management with the job cost data, accounting and financial management information, and cash flow data necessary to operate the business.

10.234 Workers Compensation Review

10.235 Labor cost is normally a significant factor in the total cost of a construction project. The kinds of labor classification on a project may include supervision, rough and finished carpentry, roofing, and excavation.

10.236 The cost of labor includes regular and overtime wages, payroll taxes, union benefits, and worker's compensation insurance. Worker's compensation can be a significant expense for a contractor depending upon the kind of work performed and the contractor's injury-loss experience.

10.237 Engagement Objective. The objective of a worker's compensation review is to minimize workers compensation expense by —

a) Determining the proper classification for all employees.

b) Determining that all subcontractors have worker's compensation insurance.

c) Reviewing losses and loss control data from the insurance company to determine their accuracy.

d) Determining whether the state in which the company does business has a policy of providing credits against premiums if special safety programs are established.

10.238 Engagement Activities. The accountant can assist construction clients in a variety of ways in order to minimize worker's compensation premiums. In certain specialties — for example, steelworkers and roofers — it is not uncommon for worker's compensation premiums to be 30 percent or more of direct labor costs. The accountant can help the client establish procedures for ensuring that all employees are properly placed in categories with the lowest premiums.

10.239 If a subcontractor working for a contractor does not have proper worker's compensation insurance, the contractor may be responsible for paying premiums on the subcontractor's wages. The accountant can help management develop a system to ensure that subcontractors have properly documented their insurance coverage.

10.240 Insurance companies provide their contractor clients with loss control reports that list all workers who have had claims paid or funds reserved for potential claims against the contractor's account. The accountant can help review the report to ensure accuracy and to discuss the potential reserve accounts with the insurance company to make certain that the reserves are at the lowest possible levels.

10.241 The accountant can also help develop a loss management program that may include:

- A safety program with a structured and measurable approach that focuses all levels of the organization on the issue of safety. (The establishment of a safety committee would be part of the program.)
- A post-injury response system for uniform handling of workers compensation claims which assists injured workers in obtaining appropriate medical care and identifies opportunities to bring the worker back to work as soon as medically possible

10.242 Engagement Benefits. The benefits of this kind of an engagement are the reduction of worker's compensation premiums, a system to ensure that future premiums are as low as possible and that all data is accurate, and an effective safety program.

APPENDIX 10-1

CONSTRUCTION CONTRACTOR

ADVISORY SERVICES QUESTIONNAIRE

The purpose of this questionnaire is to help the practitioner in identifying advisory service opportunities. Answers to these questions can be used to either a) provide "value added" services to existing engagements or b) serve as a basis for providing separate consulting engagements.

CONSTRUCTION OPERATIONS

Contract Negotiations

- Does the contractor have the potential to obtain negotiated contracts? Do they actively pursue the possibility of obtaining such contracts?
- Does the contractor have an understanding of how competitors price their bids?
- Are policies and procedures in place to analyze successful and unsuccessful bids? (For example, does the contractor compare its bid to the others submitted?)

Job Cost Estimating

- Does the job cost estimating process allow for the accurate pricing of material and labor costs?
- Is the work adequately scheduled?
- Are field supervisory personnel involved in the estimating process?
- Does management perform a timely review of cost estimates?

Subcontractors

- How is the selecting and awarding of subcontractors controlled? In addition to the price of the bid, does the process consider the subcontractor's:

  — Reputation?

  — Track record?

  — Financial strength?

Preconstruction Services

- Is the contractor aware of opportunities to perform preconstruction services?

  — Does it have the capabilities to perform such services?

- Do competitors provide preconstruction services?
- Does the contractor use preconstruction services to differentiate themself from the competition?

Job Management

- Are jobs properly managed to ensure that they are:

  — Profitable?

  — Of high quality?

  — Safe?

- How are change orders monitored?
- How does the contractor's process compare with others in the industry?
- Does the contractor have policies and procedures to ensure that change orders are properly:

  — Recognized?

  — Quantified?

  — Submitted?

  — Tracked?

ACCOUNTING AND FINANCE

General and Administrative Expenses

- Are general and administrative expense budgets prepared?
- Are actual results periodically compared to the budget?

Worker's Compensation Insurance

- Are workers properly classified by function?
- Could the contractor benefit by becoming self-insured for a portion of worker's compensation coverage?

Job Cost System

- Does the job cost system produce timely, accurate reports that include:

  — Costs to date?

  — Committed costs?

  — Estimated costs to complete?

- Does the job cost system adequately coordinate the accounting function with the job management function?

Accounts Receivable

- Does the client have an adequate system to monitor and collect past due accounts?
- Does the contractor monitor underbillings and retentions to maximize its cash flow?

Accounts Payable

- Are invoices properly reviewed and approved?
- Does the review process consider whether the invoices are reasonable in relation to the job's completion?
- How are invoices received from contractors controlled?

Cash Management

- Is cash flow monitored for each individual job?
- Does the contractor prepare accurate cash flow projections?
- Are cash discounts taken whenever possible?

Working Capital

- Are steps taken at year end to maximize the contractor's working capital?

APPENDIX 10-2

All Companies
Composite

BALANCE SHEET

	1994 Participants Amount	1994 Participants Percent	1993 Participants Amount	1993 Participants Percent
Current assets				
Cash and cash equivalents	$2,195,707	11.6 %	$2,516,011	13.2 %
Marketable securities and short-term investme	1,155,618	6.1	785,805	4.1
Receivables.				
Contract receivables currently due	6,586,464	34.8	6,625,608	34.9
Retainages on contracts	1,745,842	9.2	1,679,482	8.8
Unbilled work	340,901	1.8	236,758	1.2
Other receivables	439,887	2.3	443,750	2.3
Less allowance for doubtful accounts	(58,458)	0.3	(84,828)	0.4
Total receivables, net	**9,054,636**	**47.8**	**8,900,770**	**46.9**
Inventories	560,598	3.0	661,759	3.5
Costs and recognized earnings in excess of billings on uncompleted contracts	998,010	5.3	1,192,213	6.3
Investments in construction joint ventures	288,548	1.5	430,302	2.3
Other current assets	680,810	3.6	478,798	2.5
Total current assets	**14,933,927**	**78.8**	**14,965,658**	**78.8**
Property, plant and equipment	6,560,165	34.6	6,647,763	35.0
Less accumulated depreciation	(3,781,260)	20.0	(3,896,722)	20.5
Property, plant and equipment, net	**2,778,905**	**14.7**	**2,751,041**	**14.5**
Other assets	1,153,197	6.1	1,089,006	5.7
Intangible assets	85,805	0.5	183,096	1.0
Total assets	**$18,951,834**	**100.0 %**	**$18,988,801**	**100.0 %**

	1994 Participants Amount	1994 Participants Percent	1993 Participants Amount	1993 Participants Percent
Current liabilities				
Current portion of long-term debt	$354,008	1.9 %	$368,121	1.9 %
Notes Payable	489,361	2.6	503,061	2.6
Accounts payable				
Trade, including currently due subcontractors	5,035,048	26.6	4,762,358	25.1
Subcontractor retainages	1,177,678	6.2	990,002	5.2
Other	175,760	0.9	134,145	0.7
Total accounts payable	**6,388,486**	**33.7**	**5,886,505**	**31.0**
Accrued expenses	1,041,038	5.5	1,300,527	6.8
Billings in excess of costs and recognized earnings on uncompleted contracts	1,765,392	9.3	1,694,658	8.9
Income taxes				
Current	85,236	0.4	99,143	0.5
Deferred	35,791	0.2	53,117	0.3
Total income taxes	121,027	0.6	152,260	0.8
Other current liabilities	313,614	1.7	434,667	2.3
Total current liabilities	**10,472,926**	**55.3**	**10,339,799**	**54.5**
Long-term debt, excluding current portion	1,710,868	9.0	1,442,561	7.6
Deferred income taxes	213,322	1.1	198,385	1.0
Other	413,938	2.2	430,501	2.3
Minority interests	19,351	0.1	46,172	0.2
Total liabilities	**12,830,405**	**67.7**	**12,457,418**	**65.6**
Net worth				
Stock, par value	427,477	2.3	467,250	2.5
Additional paid-in capital	770,076	4.1	891,198	4.7
Retained earnings	5,195,186	27.4	5,343,568	28.1
Treasury stock	(271,310)	1.4	(170,633)	0.9
Total net worth	**6,121,429**	**32.3**	**6,531,383**	**34.4**
Total liabilities and net worth	**$18,951,834**	**100.0 %**	**$18,988,801**	**100.0 %**

STATEMENT OF EARNINGS

	1994 Participants Amount	1994 Participants Percent	1993 Participants Amount	1993 Participants Percent
Contract revenue	$49,700,028	97.2 %	$49,171,989	96.5 %
Other revenue	1,408,225	2.8	1,795,123	3.5
Total revenue	**51,108,253**	**100.0**	**50,967,112**	**100.0**
Contract cost	(45,863,743)	89.7	(45,073,761)	88.4
Other cost	(1,105,022)	2.2	(1,437,072)	2.8
Total cost	**(46,968,765)**	**91.9**	**(46,510,833)**	**91.3**
Gross profit	**4,139,488**	**8.1**	**4,456,279**	**8.7**
Selling, general and administrative expenses	(3,429,063)	6.7	(3,684,939)	7.2
Income from operations	**710,425**	**1.4**	**771,340**	**1.5**
Interest income	144,340	0.3	150,213	0.3
Interest expense	(147,261)	0.3	(169,596)	0.3
Other income (expense), net	7,845	0.0	4,968	0.0
Net earnings (loss) before taxes	**715,349**	**1.4**	**756,925**	**1.5**
Income taxes	(170,463)	0.3	(158,193)	0.3
Net earnings (loss)	**$544,886**	**1.1 %**	**$598,732**	**1.2 %**

NUMBER OF PARTICIPANTS

Survey Year	Number
1994	806
1993	685

FINANCIAL RATIOS

Liquidity Ratios	1994 Participants	1993 Participants
Current Ratio	1.4	1.4
Quick Ratio	1.2	1.2
Days of Cash	15.5	17.8
Work. Cap. Turnover	11.5	11.0
Profitability Ratios		
Return on Assets	2.9 %	3.2 %
Return on Equity	8.9 %	9.2 %
Times Interest Earned	5.9	5.5
Leverage Ratios		
Debt to Equity	2.1	1.9
Revenue to Equity	8.3	7.8
Asset Turnover	2.7	2.7
Fixed Asset Ratio	45.4 %	42.1 %
Equity to G & A Expenses	1.8	1.8
Underbillings to Equity	21.9 %	21.9 %
Average Backlog to Equity	6.8	9.6
Average Backlog to Working Capital	9.3	13.6
Average Months in Backlog	9.8	14.8
Efficiency Ratios		
Days in Accounts Receivable	49.1	49.3
Days in Inventory	4.3	5.1
Days in Accounts Payable	39.9	37.9
Operating Cycle	28.9	34.3

Reproduced from the CFMA 1994 Construction Industry Annual Financial Survey.

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Your State Board of Accountancy is the final authority for the number of credit hours allowed for a particular program as well as the classification of courses under its specific licensing requirement. CPE requirements vary from state to state. Contact your state board for information concerning your state's requirements as to the number of CPE credit hours that you must earn and the acceptable fields of study.

CPE Course

CHAPTER 11

INTEGRATED PRACTICE SYSTEM CONSTRUCTION CONTRACTORS AUDIT MANUAL — SELF-STUDY CPE COURSE

INSTRUCTIONS

COURSE OVERVIEW

This course was designed to provide a comprehensive understanding of the construction contractor industry including practical tips, examples and exercises to aid you in a successful completion of a construction contractor audit of any size. Each section should be read in its entirety and then the related exercises completed. Answers are provided to the exercises at the end of each section and these should be reviewed. Since the course builds on information presented, a thorough understanding of all concepts in a section should be obtained before going on. After you have completed the reading as well as the exercises for each section, a test is provided that must be successfully completed in order to obtain CPE credit.

As a result of this course you should be able to:

- Understand the distinctive aspects of the construction contractor industry
- Understand the association between a contractor and it surety and be able to provide assistance to the contractor based on this information
- Comprehend the percentage-of-completion and the completed contract methods and know when and how to implement them
- Be able to design an audit strategy
- Be able to perform an audit for both small and large construction contractors including determining the level of testing and understanding needed with regard to controls

Warning: This CPE course was included in the 1994 edition of the Construction Contractors Audit Manual. If you have already received CPE credit for completion of this course, you cannot receive additional CPE credit for this course.

CPE CREDIT

To earn a self-study "Certificate of Completion for Recommended Continuing Education Credit" for this course, complete the examination at the end of this Chapter. If you receive a grade of 75% or more on the examination, we will send you a certificate recommending four hours of CPE credit.

Included with the course materials are three postcards. Each postcard will allow you to purchase one examination package (Product No. 730046) which includes the following:

- Self-Study Examination Answer Sheet
- AICPA/CPE Self-Study Course Evaluation
- Preaddressed return envelope, and
- Instruction letter.

Each postcard should be mailed with a check for $35.00 (plus shipping and handling fees of $6.00). By purchasing this manual, up to three persons may obtain four hours of CPE credit for this course.

RESPONSIBILITY FOR KEEPING CPE RECORDS

The widely adopted *Statement on Standards for Formal Continuing Professional Education (CPE) Programs* issued by the AICPA, places responsibility on both the individual participant and the course sponsor to maintain a record of satisfactory completion for CPE self-study courses.

You should keep the following information on each course:

- The sponsor-provided Certificate of Completion.
- Other information you feel would be helpful in reporting your CPE credit hours to the state board (e.g., any notes you have taken).

This information should be kept for an appropriate period of time to enable regular periodic reporting to jurisdictional boards of accountancy and to professional organizations requiring such reports. Some state boards request copies of this information directly from registrants. Others will contact the program sponsor to confirm those details provide by CPE participants on a registration form. Sponsors are required to keep documentation on programs for five years.

COURSE EVALUATION

Included with your examination package will be a Course Evaluation Form, which you should complete and return with your examination answer sheet in the envelope provided. Your comments are important to us for preparing new courses.

THE CONSTRUCTION INDUSTRY — AN OVERVIEW

Introduction

This section will discuss some of the unique features of the construction industry — their legal structures, specialized areas of expertise in which they operate, and the effects of the economic and political environment on the construction industry.

Types of Contractors

Construction contractors can be found in almost any size and legal form. International and domestic corporations, partnerships, sole proprietorships, limited liability companies and joint ventures are all typical business forms.

Although entering the market for construction contractors is relatively easy, the type of work and size of contracts that the contractor will retain is dependent on staffing procurable to the contractor, financial resources available, and the meeting of licensing standards.

Incorporation requires obtaining a state charter and can be done easily. The corporate form is often favored because it affords limited liability to stockholders. However, banking and surety bonding requirements typically require personal guarantees of owners in closely held corporations.

Additional factors that make the corporation form favorable are its perpetual nature, the entity's ability to survive the death of the owners, and the ability to obtain financing through stock sales. Selling stock in exchange for cash increases working capital and thereby increases bonding capacity. Additionally, the election of S Corporation status eliminates the problem of double taxation on corporate distributions.

Partnerships

Partnerships are more difficult to form due to the necessity of a partnership agreement. Due to the complexity in preparation and the importance of the partnership agreement, legal consultation is advised for all parties involved in partnership formation. Partners may be individuals, other partnerships, or corporations. The partnership form may be either a general or limited partnership.

Creation of a partnership potentially allows individuals to combine their capital, increase financial strength, and increase bonding capacity. A trend in the construction industry towards joint ventures is a current example of the use of capital combination.

However, an unfavorable feature of a partnership is that the general partners do not have the limited liability afforded to limited partners or corporate stockholders.

Proprietorships

Proprietorships are another common form of legal entity for construction contractors. Generally, proprietorships are small contractors who operate locally with annual revenues of several hundred thousand dollars or less. Except for certain specialty contractors, an individual who wants to form a proprietorship need only make the decision to start the business — filing of legal documents is not required. All income of the proprietorship is taxed at the proprietor's individual tax rate. Although corporate tax rates may be more favorable than individual tax rates at lower income levels, proprietorships may offer more favorable tax treatment for higher income levels when distributions and dissolution are considered. Responsibility for obtaining financing and the unlimited liability of the sole proprietor are unfavorable attributes of this form of business.

Limited Liability Companies

The limited liability company (LLC) is one of the newest forms of business available. Most states have passed laws allowing LLCs to exist and it is expected that other states will soon follow. The LLC is typically taxed as a partnership although each partner does not have personal liability.

Areas of Expertise

Contractors are typically classified as general building, or heavy highway contractors. Costs, gross margins, equipment and financing needs vary tremendously based on the area of specialization and the market in which a contractor is competing.

General building contractors are the largest category of contractors. These contractors build and renovate the residential homes in which we live, the commercial buildings which we frequent for work, dining and shopping, and the industrial buildings in which wholesale and consumer products are manufactured. The two major categories of general building contractors are general contractors and subcontractors. As defined in the AICPA *Audit and Accounting Guide for Construction Contractors* (the Guide), a general contractor is a contractor who enters into a contract with the owner of a project for the construction of a project and who takes full responsibility for its completion. The general contractor may hire subcontractors to perform portions of work, however, the general contractor retains responsibility to the owner for problems under the prime contract. A subcontractor refers to any contractor who performs work for or supplies materials to a general or prime contractor.

Heavy construction contractors construct roads and bridges as well as other infrastructure improvements. The majority of these contractors do work for city, county, and federal governments in addition to private customers.

The heavy construction contracting business distinguishes itself from other contractors because it is far more capital intensive and often highly leveraged. Contracts are frequently priced by unit (such as per yard poured) as opposed to fixed price. Overhead costs associated with these contractors are higher than general building or specialty contractors due to their high heavy equipment cost requirements.

The Economic and Political Environment

Over the last several years, the general U.S. economy has negatively impacted the construction industry. Lack of consumer confidence in the economy, widespread building vacancies leading to real estate loan defaults, tighter lending requirements, and an oversupply of unoccupied commercial real estate have decreased the rate at which new private construction projects have begun. Governmental sectors have been working with diminished resources and deficit issues which have also tightened their spending in the construction arena.

At the beginning of the economic downturn as construction starts decreased, excavators and other "front end" contractors suffered. These contractors were the first to have their businesses contract because they are the first subcontractors to perform on a project. Because electrical, drywall, carpentry and other "finish" contractors do not perform their portion of the work until later in the contract cycle, they experienced the effects of the economic slump later. Conversely, when the economy improves, the "front end" contractors are the first to benefit while other "finish" contractors have a delayed benefit.

Local Economic Pressures. While the country is depressed economically, some local areas are thriving. Currently, Los Angeles, Phoenix, and Atlanta are projecting high growth for the next few years, providing opportunities for contractors.

Global opportunities are plentiful for contractors with the skill, knowledge, desire, and financial ability to compete in this arena. Due to lack of stability and unfamiliarity with foreign markets, a great deal of risk is inherent in expanding internationally.

Competition. Due to economic pressures, competition in the construction industry has increased dramatically. The severe slow down in commercial and industrial building markets have forced more contractors into the governmental arena. There are more contractors competing for fewer government dollars. This strong movement to publicly funded projects is also a result of the relative security government work offers in terms of payment assurance.

The number of contractors bidding on particular jobs and the frequency with which they bid for work has also increased substantially. As a result, the ratio of contracts awarded to contracts bid has decreased, along with profit margins.

In addition, contractors' ability to complete projects timely while maintaining quality has suffered in some instances. Delays in project openings and surety companies having to finance the completion of contracts have become more prevalent.

The Future. The economy has shown recent improvement. The residential construction market has improved, particularly in the single family home market, due in part to the "baby boomer" market, low interest rates, and increased consumer confidence. It is expected that both the single family and multi-family housing markets will continue to show moderate improvement over the next few years despite rising interest rates.

The retail construction market, like the commercial and industrial markets, is expected to continue to suffer. Supply continues to significantly exceed demand.

Government markets such as public building construction, infrastructures, and mass transit will continue to provide sources of work for contractors. Specialty markets such as health care facilities and hotels will continue to provide opportunities in local or niche markets.

Reading Materials. In addition to the previous discussions, in order to prepare for this course, participants should read:

- Chapter 1 of the AICPA's Audit and Accounting Guide, *Construction Contractors*, (with conforming changes as of March 1995—looseleaf version) (see Appendix A of the Manual).
- Chapter 5 of the U.S. Department of Commerce's *U.S. Industrial Outlook — 1994*, beginning on page 11-6.[1]
- Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* (see Appendix A of the Manual).

[1] The U.S. Department of Commerce no longer publishes the *U.S. Industrial Outlook*, therefore the 1994 publication is still included in this chapter.

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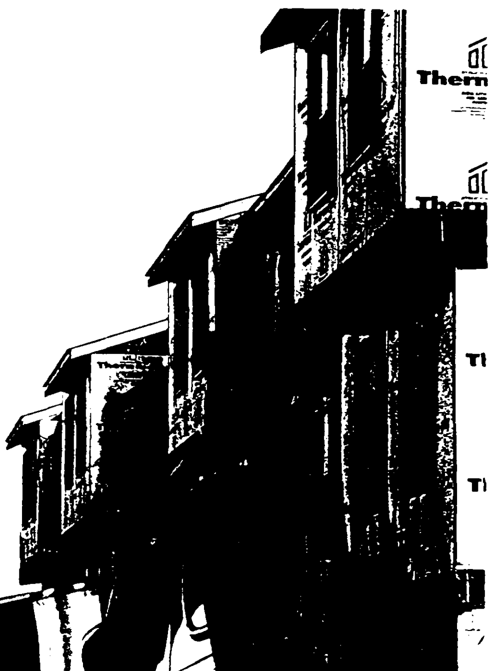

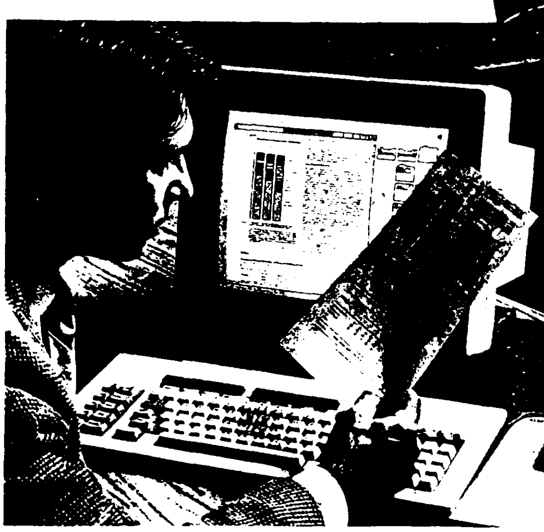

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Forecasts for Selected Manufacturing and Service Industries

U.S. Industrial Outlook 1994

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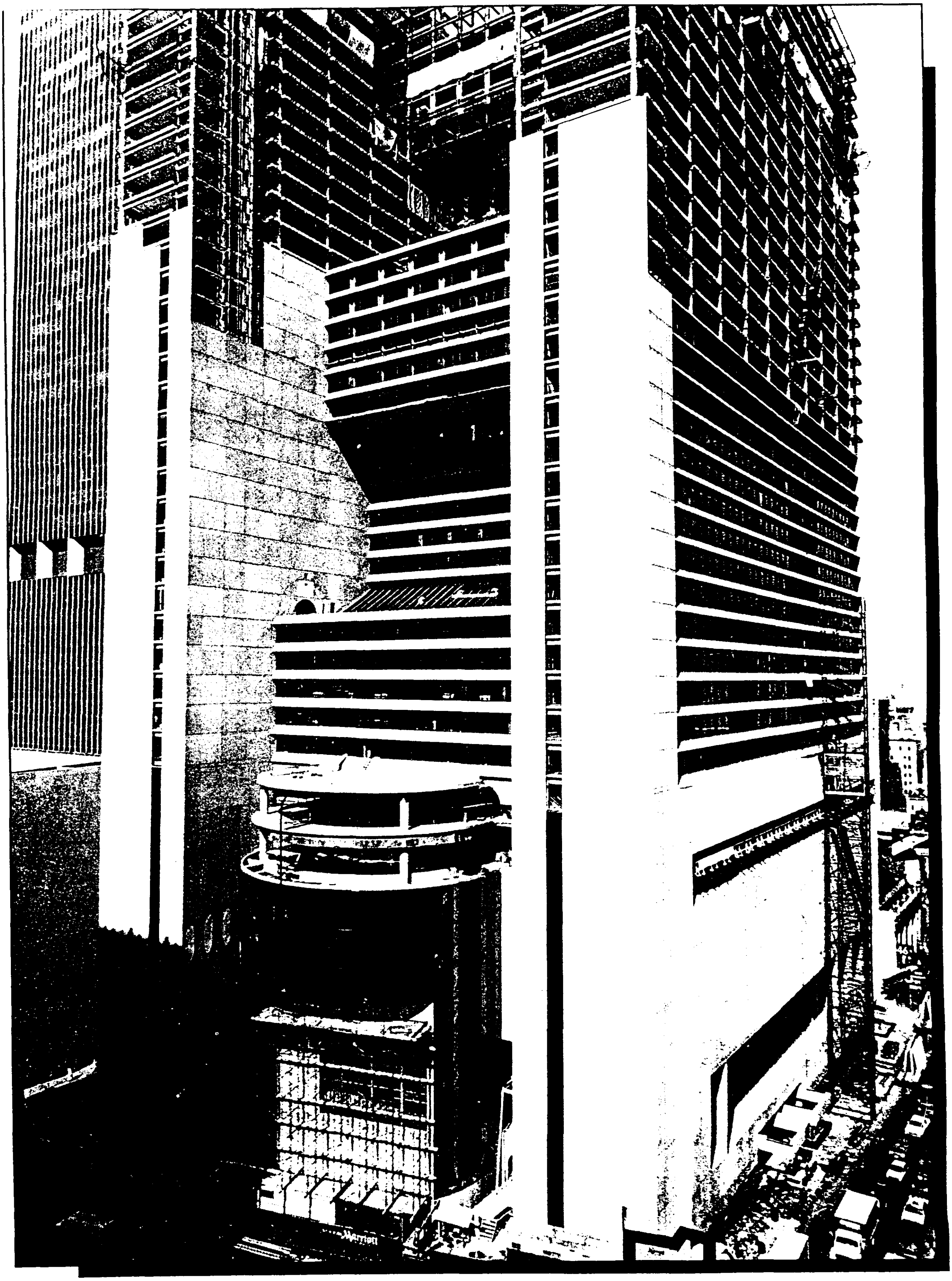

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Construction

In 1994, the constant-dollar value of new construction put in place will increase about 2 percent, while repair and remodeling work will grow at a faster pace. The homebuilding sector will continue its modest recovery, but commercial construction will decline again. Public works construction will be about the same level as in 1993. In the international construction and engineering arena, near-term opportunities for U.S. companies could be limited in the industrial economies due to slow growth there, but virtually unlimited infrastructure needs exist in developing countries.

This chapter covers private residential construction (including single-unit, multiunit, and manufactured housing); prefabricated buildings; private nonresidential construction; publicly owned construction; and international construction and engineering.

Before reading this chapter, please see "Getting the Most Out of *Outlook '94*" on page 1. It will answer questions you may have concerning data collection procedures, forecasting methodology, sources and references, and the Standard Industrial Classification (SIC) system. For discussion of other topics related to this chapter, see chapters 6 (Wood Products) and 7 (Construction Materials).

The inflation-adjusted value of new construction put in place increased about 3 percent in 1993, but was about 8 percent lower than the record level of 1986. The 1993 value of about $460 billion was an all-time high in current dollars. The number of housing starts increased by about 4 percent to 1.25 million units in 1993. An additional 265,000 manufactured (mobile) homes were shipped, a 26 percent increase. Public works construction increased slightly, led by strong spending for highways. The decline in private nonresidential construction was largely attributable to high vacancy rates in commercial buildings. Some categories of private nonresidential construction, such as hospitals and electric utilities, were growing markets in 1993 (Table 1).

Remodeling and repair work increased faster than new construction in 1993. Although the data for maintenance and repair construction are not as complete as those for new construction, 1993 probably was a record year for maintenance and repair work. Nonresidential building improvements (commercial remodeling and renovation) declined slightly from the record levels set in 1992 (Table 2).

According to the 1987 Census of Construction, about 66 percent of the construction industry's work was for new construction; 19 percent was for additions, alterations, and reconstruction; 10 percent was for maintenance and repair; and 5 percent was unspecified. In 1993, new construction probably accounted for about 60 percent of the industry's business.

In 1993, the value of new construction put in place was equal to about 7.9 percent of gross domestic product (GDP). This is well below the post-World War II peak of 11.9 percent of GDP attained in 1966, and very close to the cyclical low of 7.7 percent in 1982. Construction's share of GDP is expected to remain constant in 1994. However, this measure tends to understate the importance of construction in the economy because several types of construction activity that are not included in new construction data have grown rapidly during the past decade. These include maintenance and repair, commercial/industrial renovation, and environmental restoration.

In 1993, construction costs increased by about 4 percent, as measured by the Census Bureau's fixed-weight construction cost deflator. This was about double the average annual rate of increase during the previous 5 years, and was slightly faster than the rate of increase of the Consumer Price Index. Building materials prices also rose an average of about 4 percent in 1993; lumber prices were especially volatile. (See chapter 7 for further information.) Land prices have been fairly stable, on average, and have even declined in many areas. (Land prices are not included in the construction cost index.) Insurance and bonding costs have continued to increase, although the availability of insurance appears to be better. Labor costs have been relatively steady, with average hourly earnings of construction workers increasing by about 1 percent in 1993. Interest rates declined to 15-year lows, but credit standards were tighter than they had been, especially for real estate and construction loans.

There were about 4.6 million employees in the construction industry in 1993. This is about 10 percent below the 1990 level, which was a near record. In addition, about 1.4 million people were self-employed as proprietors and working partners. Despite the recent moderation in construction wage increases, construction remained one of the highest-paying industries, as measured by average hourly and weekly earnings (Table 3).

INTERNATIONAL COMPETITIVENESS

The construction business has become increasingly international during the past 20 years. Although only a small number of U.S. construction contractors are active internationally, they are among the most successful in the world. In 1992, U.S. contractors won about 49 percent of all international construction contracts, according to the *Engineering News-Record*. (This includes construction contracts won by foreign subsidiaries of U.S. firms.) U.S. international contractors face stiff competition, chiefly from European and Pacific Rim firms, which often

Table 1: Value of New Construction Put in Place, 1990–98

(in billions of 1987 dollars except as noted)

Type of Construction	1990	1991	1992	1993[1]	1994[2]	1998[2]	Percent Change (1993-98) 92-93	93-94	93-98[3]
Total New Construction	**397.5**	**360.7**	**386.9**	**398.4**	**405.9**	**435.6**	**3**	**2**	**2**
Residential	164.0	141.3	165.4	176.2	183.9	198.7	7	4	2
Single family	97.5	85.4	102.6	110.8	115.2	122.3	8	4	2
Multifamily	17.3	13.6	11.5	11.5	12.1	14.0	0	5	4
Home improvement	49.2	42.3	51.3	53.9	56.6	62.4	5	5	3
Private Nonresidential	135.6	120.7	113.9	112.6	112.0	122.0	-1	-1	2
Manufacturing facilities	21.4	20.0	18.3	17.8	18.1	21.6	-3	2	4
Office	25.8	20.6	15.3	13.0	11.7	11.2	-15	-10	-3
Hotels and motels	8.7	5.6	3.1	2.6	2.2	2.0	-17	-15	-5
Other commercial	30.7	22.8	21.5	21.5	20.4	22.6	0	-5	1
Religious	3.0	3.0	3.0	3.2	3.3	*	6	3	*
Educational	3.8	3.5	3.8	3.9	4.0	4.5	3	2	3
Hospital and institutional	8.5	8.2	8.9	9.3	9.8	11.4	5	5	4
Miscellaneous buildings	4.1	3.8	3.3	3.4	3.4	*	3	0	*
Telecommunications	8.5	8.1	8.2	8.6	9.0	9.5	5	5	2
Railroads	2.2	2.1	2.9	2.9	3.0	*	0	2	*
Electric utilities	9.2	12.5	14.2	15.1	15.5	18.3	6	3	4
Gas utilities	4.2	4.8	5.5	5.3	5.4	*	-4	2	*
Petroleum pipelines	0.4	0.6	0.7	0.7	0.7	*	0	0	*
Farm structures	2.3	2.3	2.0	2.1	2.1	*	3	2	*
Miscellaneous structures	2.7	2.6	3.2	3.4	3.4	*	5	0	*
Public Works	97.5	98.7	107.6	109.6	110.0	114.9	2	0	1
Housing and redevelopment	3.4	3.4	3.7	3.8	3.8	*	2	2	*
Federal industrial	1.3	1.6	1.6	1.7	1.5	*	7	-10	*
Educational	18.4	20.5	20.7	20.3	20.3	21.3	-2	0	1
Hospital	2.3	2.3	2.7	2.7	2.6	2.7	0	-3	0
Other public buildings	15.6	16.2	17.1	16.2	14.8	14.7	-5	-9	-2
Highways	29.6	29.1	33.4	35.1	36.5	38.7	5	4	2
Military facilities	2.4	1.7	2.3	2.3	2.1	1.7	0	-10	-6
Conservation and development	4.1	4.3	5.1	5.5	5.7	5.8	8	4	1
Sewer systems	8.5	8.2	8.2	8.4	8.7	9.3	3	3	2
Water supplies	4.2	4.3	4.4	4.7	4.9	5.5	7	5	3
Miscellaneous public structures	7.7	7.1	8.4	8.8	9.0	9.7	5	2	2

[1]Estimate.
[2]Forecast.
[3]Average annual rate.
*Long-term forecast not made separately for this category.

NOTE: Totals may not add due to rounding. Percent changes are calculated on more detailed data.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

Table 2: Construction Expenditures by Type of Structure, 1990–98

(in billions of 1987 dollars except as noted)

Item	1990	1991	1992	1993[1]	1994[2]	1998[2]	Percent Change (1993-98) 92-93	93-94	93-98[3]
Total New Construction	**397.5**	**360.7**	**386.9**	**398.4**	**405.9**	**435.6**	**3**	**2**	**2**
New Building Construction	262.4	230.7	237.1	241.7	243.4	260.4	2	1	1
New housing units	114.8	99.0	114.1	122.3	127.3	136.3	7	4	2
Private nonresidential	106.1	87.6	77.2	74.7	72.9	79.8	-3	-2	1
Publicly owned	41.5	44.1	45.8	44.7	43.1	44.2	-2	-4	0
Other New Structures	85.9	87.7	98.5	102.8	106.0	112.8	4	3	2
Private nonresidential	29.5	33.1	36.7	38.0	39.0	42.1	3	3	2
Publicly owned	56.4	54.6	61.8	64.9	66.9	70.7	5	3	2
Home Improvements[4]	49.2	42.3	51.3	53.9	56.6	62.4	5	5	3
Selected Maintenance and Repair[5,8]									
Residential[5]	39.8	41.0	41.0	41.6	42.3	45.3	2	3	2
Nonresidential buildings[5,6]	32.9	34.5	35.5	36.6	37.7	40.4	3	3	2
Highway[5]	20.1	20.7	22.9	22.9	23.6	26.5	4	3	3
Utility[5]	23.1	25.2	27.3	28.7	29.8	34.9	5	4	4
Nonresidential Building Improvements[4,5,6,7,8]	53.8	54.5	61.1	59.9	59.9	62.9	-2	0	1

[1]Estimate.
[2]Forecast.
[3]Average annual rate of growth.
[4]Home Improvements are included in Total New Construction, but Nonresidential Building Improvements are not included.
[5]Estimates in constant 1987 dollars were derived by ITA, using current-dollar data developed by the Bureau of the Census, and the Census Fixed-Weight Composite Construction Cost Index as the deflator.
[6]Excludes industrial and agricultural buildings, as well as buildings owned by the Federal Government or private utilities. Also excludes buildings of 1,000 square feet or less.
[7]About half of all nonresidential building improvements are included in the value of new construction.
[8]Not included separately in Total New Construction.

NOTE: Totals may not add due to rounding. Percent changes are calculated on more detailed data.
SOURCE: U.S. Department of Commerce: Bureau of the Census, International Trade Administration (ITA). Estimates and forecasts by ITA.

have more government financial support at their disposal than U.S. companies. Economic problems in Europe and several countries in the Middle East will make it difficult for U.S. contractors to repeat the remarkable successes of 1991 and 1992.

Many of the world's largest foreign construction contractors have entered the U.S. construction market, but they have not made significant inroads here, except in a few specialized sub-markets. Most of these foreign contractors have bought U.S. construction companies, while some of the largest foreign contractors have established their own operations in the United States. Foreign-owned construction firms won about $8.9 billion in U.S. construction contracts in 1992, which was down 28 percent from 1991 and 43 percent lower than the record $15.5 billion in 1990. Foreign-owned companies accounted for only about 4 percent of all construction contracts awarded in the United States during 1992. Most of these foreign entrants are based in the United Kingdom, Germany, and Japan, although nearly a dozen additional nations are represented.

Exports of prefabricated buildings have increased impressively over the past 5 years, with 1993 exports of $285 million. This success is partly due to the cheaper dollar and more commercially oriented foreign aid programs. In addition, U.S. industry has become aware that there are viable but specialized foreign markets for prefabricated buildings, and firms are stepping up their foreign marketing efforts.

Outlook for 1994

The total value of new construction will increase about 2 percent in constant dollars, while repair and remodeling work will grow at a slightly faster pace (Tables 1 and 2). The most promising markets appear to be home improvement, hospitals, telecommunications, highways, and water supply. The weaker construction markets are expected to be office buildings, hotels, public service buildings, military facilities, and Federal industrial plants. (Detailed prospects for various types of construction are discussed later.)

The following broad economic factors will affect construction demand in 1994: (1) economic growth is expected to be relatively modest; (2) interest rates are likely to remain near current levels; (3) real estate finance will continue to be characterized by weak asset prices and lender wariness of commercial property; (4) plant and equipment expenditures are expected to increase slightly, but investment in buildings will be weaker than investment in equipment; (5) vacancy rates for apartments and commercial buildings will remain high, depressing prices and the demand for new construction; (6) government investment is expected to be about the same as in 1993; and (7) demographic factors are favorable for the construction of schools and hospitals but unpromising for apartments and offices.

Housing starts will be about 1.3 million units in 1994, about 4 percent more than in 1993. Private nonresidential construction will decline slightly, as weakness in commercial building markets will more than offset strength in hospital and utility construction. Public works construction will be about the same as in 1993, as a modest rise in Federal spending is offset by construction cost increases and by declining state and local construction expenditures.

Construction activity is likely to hold up better in the Midwest and the South than in the Northeast and the West, but many of the smaller states in the West will do well. The Midwest is expected to be a major beneficiary of the anticipated revival of manufacturing output, and it has less excess building capacity than most of the nation. Numerous local governments, especially in the Northeast and California, have adopted growth management policies that raise costs and otherwise inhibit new construction. The South has received a disproportionate share of industrial construction during the past two decades, and probably will continue to grow faster than the national average as the economy continues its recovery.

Long-Term Prospects

During the 1994-98 period, new construction is expected to increase modestly from current levels, but with a slower growth rate than GDP. Remodeling and repair construction will increase substantially if interest rates remain moderate, with about the same growth rate as the overall economy. (See Table 2.)

The modest increase in new construction activities is partly due to the oversupply of commercial buildings, which will be gradually absorbed by attrition and a growing economy. The demand for new housing construction will be limited by demographic factors and by a slower buildup in homeowner equity. The Federal budget deficit will limit spending for public works, despite the well-publicized need for additional infrastructure investment.

The recovery of the U.S. manufacturing sector is expected to result in strong demand for industrial construction during the rest of this decade. Electric utility construction also will be a large and growing market. Hospital construction will continue to gain but will be influenced by the Federal health care initiative. Remodeling and repair work, both residential and nonresidential, is expected to remain a growth area, as the U.S. stock of structures becomes older and more extensive.

The commercial real estate slump is likely to persist through the middle of the decade. As measured by the value of new

Table 3: Construction: Trends and Projections, 1990–94

Item	1990	1991	1992	1993[1]	1994[2]
Value of new construction put in place (bil.$)	442.1	403.4	436.0	460.0	—
Value of new construction put in place (bil. 1987$)	397.5	360.7	386.9	398.4	405.9
Number of private housing units (000)	1,193	1,014	1,200	1,250	1,300
Shipments of mobile homes (000 units)	188.2	170.7	210.8	265.0	290.0
Employees (000)[3]	5,120	4,650	4,471	4,650	—
Self-employed workers (000)[4]	1,400	1,420	1,400	1,450	—
Average hourly earnings of construction workers ($)[3]	13.77	14.00	14.15	14.35	—
Construction cost index (1987=100)	110.2	111.2	112.1	116.0	—
Producer price index for all construction materials (1982=100)	119.6	120.4	122.5	127.8	—

[1]Estimate.
[2]Forecast.
[3]Based on establishment surveys by the Bureau of Labor Statistics. Excludes self-employed workers.
[4]Proprietors and working partners, not counted as employees.

NOTE: The data on new construction put in place do not include maintenance and repair work.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA); U.S. Department of Labor, Bureau of Labor Statistics. Estimates and forecasts by ITA.

construction put in place, the sector will decline in 1994, but the bottom may be reached by 1995. Even so, the recovery is likely to be slow, and commercial construction will not even reach current levels by 1998. The downturn is exacerbated by the failure of record numbers of financial institutions. High vacancy rates and weak building prices have made new construction unprofitable in most cases, and reluctance to make real estate loans has further limited opportunities.

In addition to market factors, the U.S. construction industry will face a number of supply-side challenges during the next 5 years, including foreign competition, the availability of workers, and the cost of insurance. Most of the foreign construction contractors competing in the U.S. market are extremely well-financed and often possess construction expertise equal or superior to that of most U.S. builders. The number of young workers, who make up most of the construction labor force, is dwindling because of demographic trends. On the other hand, there is currently no construction labor shortage because of low economic growth and high levels of immigration. However, as the economic recovery continues, shortages of labor skills could become a major problem. The cost of liability insurance has stabilized temporarily, but the cost of health insurance and worker's compensation insurance has continued to increase at rapid rates.—*Patrick H. MacAuley, Office of Materials, Machinery, and Chemicals (202) 482–0132, September 1993.*

PRIVATE RESIDENTIAL CONSTRUCTION

Housing recorded the strongest growth among the construction sectors in 1993. The current-dollar value of new residential construction amounted to $205 billion. After adjusting for inflation, this was a 6.5 percent rise over 1992, and the second year of recovery from the 1991 recession. The improvement in housing construction in 1993 was centered in single-unit homes, rising 8 percent over 1992. The market for homes in structures with two or more units remained at about the 1992 level after experiencing 3 years of declining activity. Total housing starts reached 1.25 million units in 1993, a 4 percent improvement over 1992, and the highest level since 1989 (Table 4). Home improvement expenditures rose in 1992 and 1993, when expenditures were about $64 billion.

Mortgage interest rates declined further in 1993. Thirty-year, conventional fixed-rate mortgages dropped to less than 7 percent in late summer. Interest rates were the major factor boosting new and existing home sales in a period of sluggish economic growth and vacillating consumer confidence.

Outlook for 1994

New housing starts in 1994 are predicted to be 1.3 million, which would be the second consecutive annual gain of 4 percent. Multifamily units should increase for the first time in several years, from 170,000 to 180,000 (Table 4). Single family starts are expected to increase to 1.12 million units in 1994, up about 4 percent, primarily because of the continuation of attractive mortgage rates and a gradually improving economic climate. Total new housing construction should rise 4 percent (in real terms) to $183.9 billion.

Shipments of manufactured housing (mobile homes) have risen rapidly since 1992. Shipments in 1993 were about 265,000, almost 100,000 more than in 1991. A more modest increase is expected in 1994, with shipments reaching about 290,000 units. Affordability is the major contributor to these housing gains, which will include replacements for some of those destroyed by Hurricane Andrew. The share of double-wide manufactured homes shipped is now about 46 percent of the total.

Residential upkeep and improvements spending rose about 5 percent in 1993 from the 1992 total of $103.4 billion, and a similar increase is expected in 1994. This spending has grown over the last several years, except in the 1991 recession year. Maintenance and repairs continue to account for the bulk of spending for rental properties, while improvements spending is greater for owner-occupied units.

Table 4: Private Housing Starts by Type of House, 1980–94
(in thousands of units)

Year	Total Starts	Single Unit Structures: Total	Detached Houses	Townhouses[1]	Multiunit Structures: Total	2-4 Unit Structures	Townhouse Style Apartments[1]	Apartment Units[2]
1980	1,292	852	774	78	440	110	45	285
1981	1,084	705	628	77	379	91	39	249
1982	1,063	663	577	86	400	80	27	293
1983	1,703	1,068	897	171	635	113	44	478
1984	1,750	1,085	875	210	665	121	40	504
1985	1,745	1,075	905	170	670	93	53	524
1986	1,807	1,179	1,013	166	628	84	52	492
1987	1,623	1,146	1,004	142	477	65	35	377
1988	1,488	1,081	968	113	407	59	30	318
1989	1,376	1,003	916	87	373	55	31	287
1990	1,193	895	832	63	298	38	20	240
1991	1,014	840	789	51	174	36	12	126
1992	1,200	1,030	958	72	170	31	14	125
1993[3]	1,250	1,080	1,000	80	170	35	15	130
1994[4]	1,300	1,120	—	—	180	—	—	—

[1]A single unit townhouse is one that is separated from adjoining units by a ground-to-roof wall and has separate utilities. Townhouse-style apartments, though attached, are not separated by a ground-to-roof wall, and they may share infrastructural facilities.

[2]Apartment buildings are conventional multifamily buildings in which dwelling units may share a common basement, heating plant, stairs, entrance halls, water supply, or sewage disposal facilities.

[3]Estimate.

[4]Forecast.

SOURCE: U.S. Department of Commerce, Bureau of Census. Estimates and forecasts prepared by the U.S. Department of Commerce, International Trade Administration.

Long-Term Prospects

Although home maintenance and improvements spending is expected to continue to rise substantially over the next 5 years, new residential construction will grow slowly, probably less than the overall economy. Affordability and demographic factors will tend to dilute the demand for new housing, while the need to maintain and the desire to improve the growing stock of existing houses will tend to increase those expenditures. Over the 1994–98 period, annual housing starts probably will average about 1.3 million. Later in the decade, greater construction of multifamily owner and rental units could occur because more people are expected to find it difficult to afford a single family home.

Single-Unit Housing

Starts of new private single family housing units were an estimated 1.08 million in 1993, up from 1.03 million in 1992 and 840,000 in 1991. Detached homes account for about 90 percent of these units. In 1992, the median sales price for a new single family house was $121,500, up from $120,000 in 1991, when the price declined for the first time in many years. The median price in 1993 is estimated to be about $126,500, a 4 percent increase over 1992.

The size of and amenities for new housing units have grown over the years. (In 1991, the average size of new homes declined slightly from 1,905 square feet in 1990 to 1,890 square feet, however.) In 1992, the average unit reached 1,920 square feet. The growth in housing amenities, including more bedrooms and bathrooms, central air conditioning, two-car garages, full basements, and fireplaces, occurred again in 1992. The trend is expected to continue through 1998 at its historical average growth rate of 2 percent annually.

New housing reflects two major market segments: first-time buyers and buyers who are moving up. Lower mortgage rates in 1993 have assisted both these groups. There are, of course, other segments, including the growing number of persons who have raised their families, are close to retirement or retired, and who want to find smaller units.

Multiunit Housing

Multiunit housing consists of two or more dwelling units in a single structure. Some townhouses and most apartments are included in this category (Table 4). About 80 percent of these units are rental apartments.

Multifamily housing starts were about 170,000 units in 1993, about the same level as in 1992, but the long-term trend has been down. In 1985, the recent peak year, 670,000 multifamily units were started and accounted for 38 percent of all housing starts, but by 1992 they were only 14 percent of the total.

Some of the factors that have affected the level of multifamily housing construction are changes in tax laws, diminished demand, the financial problems of the real estate industry and lending institutions, and regulatory requirements such as handicapped accessibility. Some factors may be favorable for renting, rather than buying, in the coming years, including the aging of the U.S. population, lower property appreciation values, affordability problems for many prospective home purchasers, and the expected improvement in the financing environment for apartment owners.

Upkeep and Improvement

This category consists of spending for maintenance and repairs on residential buildings, as well as for spending on new construction improvements (including additions and major replacements) to these structures and their property. Maintenance and repair consist of property maintenance costs, such as painting and appliance parts replacement and repair, but not the value of do-it-yourself labor. (Such costs are not included in Table 1 but are shown in Table 2 under "Selected Maintenance and Repair.") Improvements include additions and alterations involving major interior and exterior changes to existing residential structures, and the replacement of such major items as furnaces and water heaters.

Total spending for upkeep and improvements is expected to be almost $111 billion in 1993, a 7 percent gain over 1992. About 40 to 50 percent goes for maintenance and repair; the rest is for improvements. Of the total of almost $104 billion in expenditures in 1992, owner-occupied unit work spending was almost $70 billion; the remainder was for rental properties. The maintenance and repair work total was $45 billion, with about $25 billion on owner-occupied units. Of the almost $59 billion for improvements to residential structures, $45 billion was for owner-occupied properties.

Manufactured Housing

The manufactured housing (mobile homes) industry is different from prefabricated housing, especially modular prefabs. "Manufactured" units are built to the U.S. Department of Housing and Urban Development national manufactured housing standard, while "prefabricated" (modular) units are built to either statewide factory-built housing codes or local building codes. Manufactured housing units are shipped from plants, either single wide or as single sections of multiwide housing units. Some manufactured housing is not used for dwellings, but for light commercial use, classrooms, or clinics.

Single-wide units now account for slightly more than half of total shipments, as the popularity of the larger multiwide units has grown. Many single-wide units are placed in manufactured home communities and on rural lots. A smaller number of the multiwide units end up in manufactured home communities; more are being placed on individual plots where allowed by zoning.

Prior to 1992, shipments of manufactured homes had declined each year since 1983. Shipments were down to about 171,000 units in 1991, but rose thereafter to 210,800 in 1992 and to about 265,000 in 1993, increases of 23 and 26 percent, respectively. Growth of about 9 percent, to 290,000 units, is expected in 1994.

Manufactured home markets are usually in exurban, small town, and rural areas. In 1992, about 7 percent of total shipments went to the Northeast, 19 percent to the Midwest, 58 percent to the South, and 14 percent to the West. The remainder involved government purchases and exported units.

Customers for the industry are primarily first-time buyers, rural inhabitants, retired people, and various nontraditional households. Although most units are sold by retailers (mobile home dealers), developers have become the intermediate buyers for a growing number of mostly multiwide units.—*C. B. Pitcher, Office of Materials, Machinery, and Chemicals (202) 482–0132, September 1993.*

Trends and Forecasts: Mobile Homes (SIC 2451)
(in millions of dollars except as noted)

Item	1987	1988	1989	1990	1991	1992[1]	1993[1]	1994[2]	Percent Change (1989-1994) 88-89	89-90	90-91	91-92	92-93	93-94
Industry Data														
Value of shipments[3]	4,102	4,222	4,128	4,203	3,930	4,905	6,485	—	-2.2	1.8	-6.5	24.8	32.2	—
Value of shipments (1987$)	4,102	4,033	3,780	3,726	3,397	4,195	5,270	5,765	-6.3	-1.4	-8.8	23.5	25.6	9.4
Total employment (000)	39.9	40.8	39.9	38.8	35.1	37.5	43.0	—	-2.2	-2.8	-9.5	6.8	14.7	—
Production workers (000)	32.4	33.4	32.7	31.7	28.7	31.4	36.4	—	-2.1	-3.1	-9.5	9.4	15.9	—
Average hourly earnings ($)	8.19	8.42	8.61	8.88	8.91	9.15	9.35	—	2.3	3.1	0.3	2.7	2.2	—
Capital expenditures	42.8	51.0	25.4	26.6	16.9	—	—	—	-50.2	4.7	-36.5	—	—	—
Product Data														
Value of shipments[4]	4,044	4,129	3,989	4,032	3,753	4,685	6,195	—	-3.4	1.1	-6.9	24.8	32.2	—
Value of shipments (1987$)	4,044	3,943	3,653	3,575	3,243	4,005	5,035	5,510	-7.4	-2.1	-9.3	23.5	25.7	9.4

[1]Estimate.
[2]Forecast.
[3]Value of all products and services sold by establishments in the mobile homes industry.
[4]Value of products classified in the mobile homes industry produced by all industries.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

PREFABRICATED BUILDINGS

Prefabricated buildings are structures that are built using various forms of factory-produced items, which range from simple components (such as roof trusses, wall panels, and pre-hung doors and windows) to three-dimensional, 95 percent-complete modular units. Buildings are manufactured from wood (SIC 2452) or metal (SIC 3448) and can be designed for residential or commercial applications.

In 1991 (latest data available), the value of product shipments was $4.6 billion, down from $4.9 billion in 1990 and $5.2 billion in 1989. Metal buildings continued to dominate shipments with 60 percent of the total; wooden buildings had 40 percent. Residential structures declined again in importance relative to the total market in 1991, accounting for an estimated $2.8 billion (about 61 percent of the total), down from $3.1 billion in 1990 and $3.2 billion in 1989. The residential market for prefabricated buildings is comprised of about one-third of all metal buildings and essentially all wooden prefabricated buildings. Residential structures also include those buildings used for light commercial applications, such as portable schools and temporary medical facilities.

Domestic industry shipments of wood and metal prefabricated buildings accounted for an estimated 95 percent of total industry shipments in 1991. The continuing weak domestic market for U.S. building construction during 1992 increased U.S. companies' emphasis on strong export markets to offset declining domestic sales. In spite of major government export initiatives aimed at assisting industry increase exports, total industry shipments (domestic and export) declined in both current and constant dollars in 1992.

INTERNATIONAL COMPETITIVENESS

International sales of the U.S. prefabricated building industry reached about $285 million in 1993. This was almost identical to (estimated) 1992 export sales of $283 million, but more than $276 million in 1991 (Table 5). The major export markets for prefabricated houses in 1992 and 1993 were Japan, Saudi Arabia, Russia, China, Mexico, and Canada. Imports of prefabricated houses into the United States were negligible.

The U.S. Department of Commerce has ongoing, export-oriented housing initiatives in Mexico, Poland, South Africa, and Russia. Each of these countries has major housing needs.

The Mexican market for housing, construction, and construction services in 1992 continued to demonstrate strong growth, with total imports of about $840 million. In 1990–92, this market grew at an average 70 percent per year, but this rate of growth is expected to slow to about 8 percent annually during 1993–96. Imports are an important part of the Mexican market, accounting for more than 95 percent of reported consumption. The United States is Mexico's largest supplier of housing and construction materials, with a 70 percent market share of 1992 imports.

Mexico continues to have a critical housing shortage. Annual housing demand of 580,000 units is far in excess of production, and its total shortfall now is estimated at more than 7 million units. The Mexican government has launched a major housing program designed to encourage private sector assistance in meeting the nation's burgeoning housing needs.

Poland is another promising export market because its housing shortage is about 2 million units. The Polish government has estimated that the country must build 400,000 units annually, most of which will be prefabricated, to meet the country's housing needs by the year 2000. The Commerce Department is committed to developing long-term relationships with Polish government officials and entrepreneurs to assist U.S. companies in securing housing exports there.

Housing is a critical component for the future socioeconomic development of South Africa, which has 38 million people. About 65 percent of the population resides in largely overcrowded urban areas; about 70 percent of gross domestic

Table 5: U.S. Prefabricated Housing Industry Exports, 1989–93
(in millions of dollars[1])

Type	1989	1990	1991	1992	1993[2]
Prefabricated, wood	29.6	35.7	86.1	59.8	45.0
Prefabricated buildings, metal	71.1	85.2	101.9	142.9	160.0
Prefabricated buildings, other[3]	53.2	50.5	88.1	80.0	80.0
Total	153.9	171.4	276.1	282.7	285.0

[1]FAS value.
[2]Estimate.
[3]Primarily used for light commercial applications.
SOURCE: U.S. Department of Commerce.

product and virtually all economic growth occur in the cities. With nearly 1 million people migrating to the cities every year, it is estimated that by the year 2000 the urban population will grow to at least 35 million, out of a total population of more than 50 million. Given current demographic trends, the housing shortfall, which was 2.2 million units in 1993, will grow to about 5.2 million by 2000.

Efforts to solve South Africa's housing problem must focus not only on homebuilding, but also on the infrastructure of current and prospective sites—roads, electricity, sanitation, and water. For example, an estimated 66 percent of the country's population has no access to electricity.

South Africa encourages foreign investment and treats it the same as domestic enterprises. U.S. companies wishing to become involved should consider joint-venture arrangements with local South African companies. Several foreign firms have tried to enter the building industry in South Africa by going it alone, but have not succeeded. South African companies have considerable experience in the local market and in dealing with government and municipal red tape.

Housing shortages in Russia have been estimated recently at more than 12 million units. Most units being built are targeted at those Russian families who have had their names on waiting lists for government housing for more than 10 years. Other urgent housing needs include at least 500,000 houses for Russian military personnel and their families returning from the Baltic countries and Eastern Europe. A reported 1.5 million families in Siberia wish to relocate to other parts of Russia. An undetermined number of Russian families also would like to be relocated from Chernobyl and similar nuclear plant locations, where accidents have occurred over the years. Consequently, Russian government officials and entrepreneurs are eager to attract U.S. capital and technology to assist in the development of the housing sector and the restructuring and privatization of state construction enterprises.—*Patrick D. Cosslett, Office of Materials, Machinery, and Chemicals (202) 482-0132, September 1993.*

PRIVATE NONRESIDENTIAL CONSTRUCTION

In 1993, the value of new private nonresidential construction was $117 billion, about 1 percent less in constant dollars than in 1992, and about 20 percent below the record set in 1985. Of the 1993 total, $85 billion was for buildings, and $32 billion went for other structures. The declines were most severe for office buildings and hotels, while the construction of hospitals and electric utility plants registered solid increases. The South and West accounted for about 60 percent of total nonresidential construction.

The weakness in nonresidential construction reflects the aftermath of the phenomenal commercial building boom of the 1980's. The record amounts of new building space, combined with the slowdown in economic growth, have resulted in record vacancy rates for office buildings, stores, hotels, and warehouses. These high rates will depress the demand for new construction through the mid-1990's, until supply and demand for commercial space are brought into balance.

Although lower interest rates have tempered the decline in commercial construction, availability of credit for commercial construction has been tight. For the past several years, lenders have been reluctant to provide credit for real estate development because of poor loan experiences and government regulations.

Outlook for 1994

New private nonresidential construction will decline by about 1 percent, despite the expected modest growth in GDP and total business investment. All of the net increase in business plant and equipment expenditures will be in capital equipment, rather than in buildings and other structures. Investments in equipment tend to be cost-saving measures and are less risky than new industrial plants.

The most construction growth in 1994 is expected to be in hospitals and other health institutions, electric power utilities, and telecommunications. They will continue to do well through the mid-1990's. The largest declines in 1994 will be in commercial construction, especially office buildings and hotels, where capacity surpluses are greatest.

In contrast to the weak outlook for new construction, the nonresidential repair and renovation markets probably will continue to grow in 1994. Electric utilities in particular are likely to increase their maintenance and repair expenditures substantially. Although nonresidential building improvements will remain at high levels, the rapid growth rates of this type of construction probably are over for the next several years. (See Table 2.)

Long-Term Prospects

Growth in total private nonresidential construction is likely to lag increases in the overall economy over the next 5 years, given high vacancy rates for commercial buildings, continued liquidation of failing thrift institutions, and relatively modest growth in GDP. However, the decline will be entirely in commercial construction. Industrial, utility, and hospital construction probably will increase from 1993 to 1998.

By 1998, private nonresidential construction will have recovered to about current levels, but spending on factories, utilities, and hospitals will account for a much larger share of the total, and commercial construction will have a substantially lower proportion. The decline in commercial construction is likely to end before 1998, but a sustained recovery is unlikely until building prices increase enough to make new construction profitable.

The need to modernize the existing U.S. capital stock will provide strong underlying demand for new construction as well as for repair and renovations. The amount invested in structures will be large. The repair and renovation market will be stronger than the new construction market during the next 2 years, and spending for nonresidential building improvements may exceed that for new building construction by the end of the decade.

Manufacturing Facilities

The real value of industrial construction put in place decreased in 1993, but the decline is expected to end in 1994 as the economy recovers. The long-term rate of increase may be slower than in previous recoveries because of modest corporate profits and slower economic growth.

Although strong foreign competition in international trade has reduced the need for U.S. industrial construction, this factor will be less of a depressant in the 1990's than it was in the previous decade because U.S. manufacturers are becoming more competitive. The North American Free Trade Agreement (NAFTA), if it is enacted, is expected to boost industrial construction over the next 5 years as U.S. companies increase their production capacity.

Although the long-term outlook for industrial construction is subject to many uncertainties, it is likely to be one of the stronger construction markets during the next 5 years. The general economic climate should be moderately favorable for industrial construction. However, negative factors include continued uncertainty about the economy, regulatory burdens, and heavy debts of many companies.

Office Buildings

Office construction in 1993 was 35 percent below its 1985 record. Further declines are expected in 1994 and for several years thereafter because of high vacancy rates, slower growth in white-collar employment, and poor financial conditions in the real estate industry. In most office markets prime office buildings are for sale at prices well below the cost of construction. Nevertheless, a sizable amount of office construction will continue because of strength in a small number of cities and market niches.

White-collar employment declined in 1993, even as large amounts of new office space came onto the market. As a result, office vacancy rates have remained high, and building prices have fallen. In 1994, white-collar employment is expected to increase slowly because of modest economic growth and corporate cost-cutting. Over the next 5 years, growth in this employment is likely to remain low for demographic reasons; this will tend to keep vacancy rates high, despite the slowdown in construction. In addition, severe financial problems face many office building developers. Therefore, office construction probably will continue to decline through 1995.

The office renovation business has fared much better than new office construction in recent years. By 1992, expenditures for office renovation were probably greater than new office construction put in place. Much of the rapid growth in this market segment was the result of overbuilding, which compelled owners to upgrade their older buildings to retain tenants. Although expenditures for office remodeling are likely to remain at high levels, the era of rapid growth is largely over because of tight financial conditions in the real estate industry.

Hotels and Other Commercial Buildings

Construction of hotels and motels declined sharply in 1993, reflecting the end of an international hotel building boom. A further decline is likely in 1994 to bring capacity more in line with market demand. Fortunately, the underlying demand for hotel lodging is expected to grow steadily in the long term and eventually will stop the decline in hotel construction.

The "other commercial buildings" category consists of all commercial buildings, except office buildings and hotels, and includes warehouses, grain elevators, shopping centers, parking garages, banks, fast-food restaurants, and gasoline stations. In recent years, shopping centers have accounted for about half of the value of construction work in this category, and warehouses for about one-fourth.

The excess capacity problem has not been as great for stores and warehouses as for most other categories of commercial construction. The sharp decline in store construction is leveling off, although a sharp upswing is not likely during the next 5 years. Much of the current strength in store construction is in upgrading current shopping centers and in building stores close to new housing subdivisions.

Construction of service stations and auto repair garages has declined from the record set in 1987, but this downturn has probably run its course. The auto service business has benefited from the increasing complexity of automobiles and the higher proportion of older cars that need more maintenance. Although the number of gasoline stations has declined sharply over the past two decades, most of the remaining stations are investing large amounts in construction to become high-volume sales outlets, convenience shops, or specialized service stations. According to economic and demographic forecasts for the next 5 years, there will be further increases in the number of vehicle-miles driven and in the demand for auto service and repairs.

Private Electric Utilities

Electric utility construction increased slightly in 1993, continuing a recovery that should last through the first half of the 1990's. This construction includes new power plants, transmission lines, pollution control facilities, conversion of existing power plants from oil and gas to coal, and modernization of existing power plants and other buildings.

The surplus generating capacity that plagued the industry during the 1980's is steadily disappearing, and shortages are appearing in some other areas. There probably will be a quickening in the pace of new power plant starts, but utilities are unlikely to order large numbers of new plants. Instead, the emphasis will be on conservation, expansion of existing facilities, and heavier use of existing capacity.

Several segments of the electric power construction market that prospered even during the slump will continue to do well through the mid-1990's—transmission facilities, retrofits of existing power plants, and pollution control systems. Retrofits to improve the efficiency and extend the generating life of power plants involve much less risk and require fewer permits than does "greenfield" construction at new sites. Utilities will continue to invest heavily in transmission systems to accommodate growth and make optimum use of existing power plants. Pollution control spending will increase because of tightening environmental restrictions and a Federal Government program to subsidize clean coal technology.

Expenditures for the maintenance and repair of electric utility systems have grown rapidly and are almost as large as new utility construction spending. Maintenance and repair expenditures will continue to grow rapidly in the 1990's, as the average age of operating power plants increases and as operations become more complex.

Hospital and Institutional

This category includes hospitals, outpatient clinics, nursing homes, convalescent homes, orphanages, and similar institutions for prolonged care. About 70 percent of the value of this construction is for hospitals and clinics; the remaining 30 percent is for nursing homes and similar facilities. A noteworthy feature of hospital and institutional construction is that 70 percent of the value is for additions and modernizations at existing facilities, while only 30 percent is for new construction. Privately owned facilities account for about 75 percent of the construction; the rest is publicly owned.

Construction of health care facilities increased by 5 percent in 1993, and a similar gain is expected in 1994. During 1994–98, this construction probably will be one of the fastest-growing markets.

The greatest uncertainty in the hospital construction outlook is the prospect of major increases in Federally mandated health insurance. This will probably result in more demand for health care and thus increase construction of health care facilities. However, the details of health financing reform are not yet in place, so any construction forecast is subject to major revisions. (See chapter 42.)

Aside from health care reform, the most important factor in the longer-term outlook for hospital and institutional construction is the rapid increase in the number of elderly Americans. People over 65 average about six times as much hospitalization, per capita, as persons under 65. Nearly 90 percent of the 1.8 million Americans in nursing homes are 65 or older.

Construction of nursing homes, which service the most rapidly growing segment of the population, is likely to increase even faster than overall health care construction. Between 1980 and 1990, the nation's nursing home population grew by 24 percent, and demographic projections indicate it may grow even faster between 1990 and 2000.

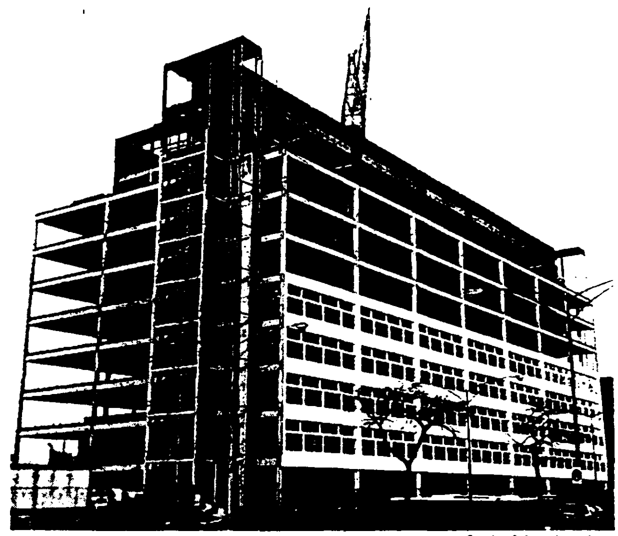
Additional factors that will support health care construction are the increasing use of new sophisticated medical treatments, the prospect of major increases in Federally mandated health insurance coverage, the need for additional clinics for drug addicts, the increasing number of AIDS patients, and the need to modernize in order to attract paying patients and scarce health care personnel. Negative factors include the poor fiscal condition of hospitals with large proportions of charity patients, as well as the possibility that shortages of nurses may lead many hospitals to defer expansion plans. Publicly owned hospitals are less able to cope with these problems, so their construction is expected to lag behind that of privately owned hospitals.—*Patrick H. MacAuley, Office of Materials, Machinery, and Chemicals (202) 482–0132, September 1993.*

PUBLICLY OWNED CONSTRUCTION

The value of publicly owned construction put in place increased about 3 percent in constant dollars in 1993, primarily because of gains in highways, water works, conservation and development, and Federal industrial facilities (Table 1). The total value of publicly owned construction in current dollars was about $120 billion, of which $32 billion was for highways and bridges.

Public works construction has increased substantially over the last decade, although it is still below (in constant dollars) the record level reached in 1968. This recovery partly represents a commitment to stop the deterioration of U.S. infrastructure facilities. The vast U.S. highway network helps U.S. industrial productivity by allowing faster and cheaper transportation of products. Other types of infrastructure, such as airports, schools, waterworks, prisons, and mass transit also contribute to productivity.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) has set the direction for highway and mass transit construction through the mid-1990's. ISTEA authorizes increased levels of funding, totaling $151 billion over 6 years, and reorients the huge Federal-aid highways program. Mass transit construction is likely to receive proportionally more from ISTEA than highway construction. The proportion of funding for repair and reconstruction appears to be gaining at the expense of new construction. States will have much more spending discretion with Federal grants-in-aid, and much of the funding that formerly would have been restricted to the 43,000-mile interstate highway system can be spent on other parts of the 155,000-mile national highway system.



Soodan & Associates, Inc.

Public construction is expected to total $110 billion in 1994, about the same as in 1993.

Over the past several years numerous state and local governments have had budget shortfalls, which are restricting their ability to pay for public works construction. Total state and local revenues for construction would have declined by 6 percent in 1993, if Federal grants had not increased. Total Federal spending for construction increased by 14 percent, more than offsetting the budgetary weakness at the state and local level.

Outlook for 1994

The overall value of publicly owned construction will be about the same as in 1993, although there will be some bright spots. The biggest gains probably will be in highways, conservation and development, waterworks, and prisons. School construction will be unchanged. The biggest declines will be in military construction and other public buildings.

This no-growth outlook is the result of several offsetting developments: Federal spending for infrastructure will increase by about 7 percent; state and local spending will continue to weaken; and construction costs will increase again.

Long-Term Prospects

Public works construction will increase modestly during the 1994–98 period, assuming moderate economic growth and fairly stable interest rates. Federal construction spending will level off in 1995, unless there are major new infrastructure initiatives. The Deficit Reduction Act of 1993 apparently will have minor effects on infrastructure spending, although the imposition of gasoline taxes for general-fund purposes may undermine support for future gas taxes for public works. Fortunately, state and local funding for public works may recover at about the same time that Federal funding softens.

As in the private sector, maintenance and repair spending probably will increase faster than new public construction spending because the public works infrastructure is steadily becoming older and larger. While increased maintenance and repair expenditures will provide work for certain types of contractors, they often will consume funds that could have been spent on new construction.

Highway construction is likely to be the largest and most predictable public works market through the mid-1990's. However, increases will be relatively moderate unless it is decided to draw down the Highway Trust Fund. Water resources and marine construction are scheduled to increase, but may become victims of deficit reduction measures. Water and sewer construction will remain at high levels, although it will not increase much. Construction of schools and other public buildings also may increase. Military construction will decline sharply. Federal industrial construction is expected to decline after 1994 because of the cancellation of the Superconducting Super Collider (SSC), an atom smasher that has been under construction in Texas.

Transportation Infrastructure

New road and bridge construction increased 5 percent in 1993, and probably will be up again in 1994. Expenditures for highway maintenance and repair also have risen, partly at the expense of new construction. This trend is likely to continue through the mid-1990's.

In the longer term, highway construction expenditures probably will increase further to prevent a decline in the condition of the nation's highway infrastructure. Most highway construction is funded with gasoline taxes, and the public may approve modestly higher gas taxes if the receipts are used to improve highway infrastructure.

In 1993, about 25 percent of the value of highway construction put in place consisted of bridges, overpasses, and tunnels, while flatwork (primarily roads) accounted for the remaining 75 percent. Bridge work is expected to grow faster than flatwork during the next several years because of the need to replace obsolete or unsafe bridges. According to the Federal Highway Administration, 23 percent of the highway bridges in the United States were structurally deficient, and an additional 21 percent were functionally or structurally obsolete in 1990.

In 1993, the current-dollar cost of highway maintenance and repair was about $24 billion, compared with $32 billion in new highway construction put in place. While some maintenance work was routine, such as mowing grass, much of it was typical construction activity, such as repaving roads and painting bridges. Highway maintenance and repair expenditures will probably grow more rapidly than new construction over the next decade because the road network has become larger and older (Table 2).

Mass transit construction has received a major boost from ISTEA; $35 billion is earmarked for mass transit projects, and up to an additional $90 billion could be spent on mass transit rather than highways. A large share of these discretionary Federal transportation grants is being diverted from highways to mass transit because of air pollution concerns and local development policies.

Airport construction has gained dramatically in recent years in response to the large increases in air travel that occurred in the 1980's. Federal Government spending for airport construction is expected to grow by more than 10 percent in 1993, and local investments in airports will remain at high levels. In the next 5 years, however, overall airport construction spending will level off or even decrease because of the declining profitability of many domestic airlines.

Water and Sewer Systems

Water and sewer construction increased in 1993, and should increase again in 1994. Demand for water and sewer construction is being sustained by the recovery in homebuilding, which requires expansion of feeder/connector systems and treatment plants. Water and sewer infrastructure for new subdivisions usually is financed by developers and local utilities. In contrast, numerous construction projects that were to be financed by local government funds have been deferred because of budget problems. Sewerage projects usually have been easier to defer than those affecting water supply.

Sewerage construction is likely to continue to gain after 1994, although at a slower rate than the overall economy. Federal spending may not keep up with inflation, but state and local government finances are expected to improve. The relatively modest but sustained recovery in homebuilding also will support sewerage construction.

The major uncertainty in the long-range outlook for sewer system construction is the extent to which state and local governments will support the new loan program established by the Clean Water Act. If states augment Federal loan funds with their own money, construction might increase substantially. On the other hand, the loan program may be much less popular with local governments than the grant-in-aid program, which is being phased out.

In the longer term, waterworks probably will be one of the more rapidly growing categories of public construction because of ancient aqueduct systems in most older cities. The current level of construction in the United States is much less than that needed to replace the waterworks every 50 years, which is recommended practice. Most water utilities can raise the capital needed, so a steady increase in replacement construction is likely for the rest of the century. The Safe Drinking Water Act will require numerous upgradings and replacements of water supply facilities. The Water Resources Act has facilitated increased Federal funding for water supply construction.

Solid waste disposal facilities, including those for resource recovery, are a small but rapidly growing market. Resource recovery facilities will become increasingly common because of improved efficiency, rising land prices, and environmental objections to landfills.

Educational Buildings

New construction expenditures for schools, libraries, and museums decreased slightly in 1993. About 70 percent of the spending was for primary and secondary schools, while colleges and other higher education facilities accounted for an additional 25 percent. More than 80 percent of educational construction expenditures were for publicly owned buildings.

The school construction boom of the late 1980's and early 1990's has been derailed by budget problems of state and local governments. Despite strong underlying demand, these problems will restrain expenditures for educational construction in 1994 and probably through the mid-1990's.

Conservation and Development

This category includes water resources development and protection expenditures, as well as the electric power construction programs of the Federal Government. Federal expenditures account for about 80 percent of conservation and development construction.

This construction increased 8 percent in 1993, chiefly because of a recovery in the power program outlays of the Tennessee Valley Authority (TVA). Construction will increase again in 1994, as TVA investment remains high and water resources programs are augmented. The Water Resources Act authorized 181 new water resources construction projects that have helped to keep this construction at high levels. However, budget pressures will limit funding enough to keep these programs from greatly exceeding current levels.

Federal Industrial Construction

This category consists of Federally owned manufacturing, assembling, and processing buildings and related facilities. More than 60 percent of this construction is funded through one Department of Energy program—Atomic Energy Defense Activities. Most of the construction for this program is related to weapons R&D and production, atomic waste isolation and reprocessing, and environmental cleanup. Another large segment of Federal industrial construction is for energy R&D facilities.

In 1993, Federal industrial construction increased substantially. Most of this increase involved work on the $11 billion SSC, which moved into the construction-intensive phase. In October 1993, Congress voted to discontinue funding for the SSC, although heavy outlays will continue in 1994 and probably in 1995 for an orderly phase out of the project.

The longer-term outlook depends largely on Federal budget developments. The Atomic Energy Defense Facilities program is subject to spending cuts, as are most military programs. However, construction work will be supported by the large and steadily increasing level of spending on environmental cleanup activities at Federal industrial facilities.—*Patrick H. MacAuley, Office of Materials, Machinery, and Chemicals (202) 482–0132, September 1993.*

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INTERNATIONAL ENGINEERING AND CONSTRUCTION

In 1992, U.S. engineers and constructors positioned themselves for and profited from significant new opportunities in world markets. Major opportunities came from the U.S.-Canada Free Trade Agreement, privatization in Eastern Europe and the countries of the former Soviet Union, high growth in Pacific Rim economies, and changes in the European Community.

According to the *Engineering News-Record* (ENR), U.S. companies maintained their preeminent position in the global international engineering and construction market. Forty percent of the 200 top international design firms were from the United States. U.S. companies obtained 51 percent of total international billings of $12 billion in 1992. Designers increased their foreign billings by about 43 percent over 1991, to $6.6 billion. In contrast to a slowly recovering domestic market, those firms that ventured into international activities found a thriving and expanding business environment.

Although domestic U.S. billings have lagged, the top 500 design firms and 400 constructors from the United States have dramatically increased their international business. In 1992, almost 20 percent of U.S. construction-related design services performed by the largest 500 U.S. design firms, and about one-third of the contract awards of the top 400 U.S. contractors, came from foreign markets. U.S. international constructor awards increased to $72.2 billion, 49 percent of global awards of $146.5 billion. This was only 2 percent higher than in 1991, but dramatically up from the $47.3 billion in new awards won in 1990. Since most of the growth in business is coming from overseas assignments, work from foreign sources accounts for an increasing part of the U.S. design/construction and constructor business.

Different markets were important for the various industry segments. Europe, with a 50 percent increase in total billings of $2.4 billion over 1991, was the leading market in 1992 for design construction companies. With the exception of Canada, all other design construction markets increased dramatically—central and southern Africa (163 percent higher to $285 million), Latin America (up 46 percent to $709 million), the Middle East (43 percent, $1.1 billion), North Africa (34 percent, $202 million), and Asia (31 percent, $1.5 billion). However, billings in Canada in 1992 fell 16 percent to $228 million because of the slow economic recovery there.

During 1992, awards to U.S. constructors in Asia grew 31 percent over 1991, to almost $22 billion. This performance eclipsed European contracts, which increased 25 percent to $16.8 billion. Excellent Asian markets for U.S. engineering and design services included Hong Kong, South Korea, Taiwan, Malaysia, Indonesia, and Thailand, which had economic growth rates from 8 percent to 14 percent.

The Middle East remained an attractive market, providing $16.8 billion of contractor business in 1992. However, because of the winding down of the Gulf War cleanup, awards declined 1 percent from 1991.

Engineering for industrial and petroleum projects generated 61 percent of all billings abroad. ENR reports that general building and transportation design work each generated 8 percent of total international billings; hazardous waste and manufacturing, 5 percent each; sewer and wastewater projects, 3 percent; and water supply projects, 2 percent.

Petroleum projects, accounting for $43.8 billion of contracts, dominated construction work abroad. The remainder of these projects were mainly in transportation ($8.5 billion), industrial process work ($8 billion), building ($5.4 billion), manufacturing construction activity ($2.2 billion), and sewerage and waste disposal ($1 billion). Water, power, and hazardous waste remediation projects declined in value from 1991.

In 1992, foreign design billings in the United States were $1.2 billion, 10 percent of total international billings of $12 billion. The Europeans won $933 million of billings in the United States (led by the British, with $406 million), followed by Canada ($201 million) and Japan ($6.5 million).

Foreign construction awards in 1992 in the United States were $8.9 billion, or 6 percent of total global awards of $146.5 billion. Europe dominated with $6.8 billion of awards in the United States, mainly because of Britain ($2.8 billion) and Germany ($2 billion). Japan had $1.5 billion.

Changes in the Industry

Fundamental changes are occurring in the U.S. international engineering and construction industry. Company executives are becoming more aware of opportunities in the global market and so devote a greater proportion of their resources to developing this business. Sensitive to economic downturns in the more developed economies, they place greater emphasis on project development in those developing countries that have sustained growth. Companies also look for projects in such transition economies as Russia and Eastern Europe.

Conversion to metric standards has become a prerequisite to full participation in the international construction market. Since 1992, the European Community has required metric labels on all products, and Canada and Mexico are now largely metric countries. Nonmetric labeling constitutes a barrier to the entry of many U.S. products into foreign markets. To fully penetrate these markets, U.S. firms must "go metric."

Executives also are increasingly aware that early timing and a strategic approach must be essential components of their company plans. Forward-looking companies identify projects at an early stage, establish strategic networks in the host country, assist in the development of pre-feasibility and feasibility studies, and exercise creative imagination in the development of financial packages.

Global Market

The current uncertainties of the world economy mean that U.S. international engineering and construction companies should emphasize long-range strategic planning. Although longer-term opportunities in an integrated Europe still exist, the current slowdown of the leading European economies will result in a temporary decrease in infrastructure investment. Japan's construction market, despite its $700 billion annual volume and U.S. Government efforts to assist U.S. firms there, remains largely inaccessible to foreign companies. However, this may possibly change under Japan's new administration. Canada, a key market for U.S. engineers and constructors, is experiencing a slow economic recovery.

Despite continuing needs in Eastern Europe and the countries of the former Soviet Union, economic constraints in most of this region prevent substantial construction growth. Problems include unresolved land ownership issues, lack of project development capabilities, and obsolete construction techniques and technology. The primary constraint is a lack of investment capital. Therefore, companies prepared to structure creative financial packages are most likely to find opportunities in these markets.

Latin America, although emerging as a good market for engineering and construction services, still maintains a heavy overhang of external debt; some countries have yet to implement economic stabilization policies. Nevertheless, there is increased political stability, and governments are moving toward privatization of public enterprises. In anticipation of the North American Free Trade Agreement (NAFTA), Mexico has accelerated its infrastructure development. Project opportunities in Mexico abound in environmental control, water purification and distribution systems, hydroelectric power, power transmission projects, and other areas. Here, as elsewhere, partnership with a local firm can be an important part of a company's market development strategy.

Other bright spots for international engineering and construction remain in Asia, particularly China, Indonesia, Malaysia, Singapore, Taiwan, and Thailand, and in the Middle East. A combination of rapid economic growth, relatively stable governments, substantial foreign exchange reserves, low levels of foreign debt, and an extensive need for infrastructure present opportunities for U.S. international engineers and constructors in these regions. However, U.S. suppliers should expect to encounter razor-sharp competition. Consequently, they will need to adopt aggressive strategic plans and exercise commitment and persistence in developing and implementing them.

Outlook for 1994

The slow growth experienced in 1993 by many developed economies will affect the prospects of the U.S. international engineering and construction industry. Although declining interest rates may eventually bolster these economies, the recession in parts of Europe, a slow recovery in the United States, and a stagnant Japanese economy could have an adverse effect upon the growth of the developing countries in 1994. One result will be decreased project formulation, thereby increasing the need for more effective U.S. international engineering and construction marketing efforts. As the export-driven economies of Europe and Japan cope with a slowdown in domestic business, aggressive competition will intensify in other countries.

U.S. firms will have to reassess carefully their marketing strategies in 1994. Much of their success abroad will depend on their willingness to pursue joint ventures with local companies, their ability to develop and implement advanced technologies, and their skill in effectively promoting, marketing, and obtaining financial packaging.

Long-Term Prospects

Global population projections indicate a large future demand for infrastructure. By the year 2025, there will be an estimated 8 billion persons (5 billion in 1987), most of them in the developing countries. The United Nations reports that 100 million persons move annually to the cities, which require immense investments in transportation systems, communications facilities, water and sewerage, housing, roadways, hospitals, and schools.

Over the next 10 years the developing countries will need power plants, telecommunications systems, ports, railroad transportation, gas distribution facilities, toll roads, and bridges and tunnels, all of which will cost more than $1.5 trillion. Transportation infrastructure alone could absorb $100 billion a year.

Some experts predict that infrastructure spending in Asia could total hundreds of billions dollars annually by the year 2000. To meet these needs, most Asian countries have large projects in various stages of planning. For example, South Korea plans to spend about $400 billion, and Taiwan has $245 billion of prospective projects. Thailand is making massive investments totaling $25 billion in transport facilities. Indonesia is projecting the expenditure of $50 billion on transport and energy projects. Experts estimate that during the next 5 years China will spend at least $92 billion on infrastructure.

During 1994, and for the foreseeable future, the availability of project finance will remain the basic problem in implementing projects in the developing countries. U.S. international engineers and constructors will continue to face inadequate public and private project financing. In the decade ahead these companies will need to exercise creative financial packaging. Those companies that can arrange financing will find markets for their goods and services.

Resourceful companies seek out and obtain financing from many sources. Commercial banks are beginning to show renewed interest in developing country projects. However, they now are more concerned about stronger financial bases for repayment and pay more attention to the underlying assumptions and financial details of future projects. In many cases, they claim equity participation in the projects they finance. Other sources that will continue to be important during the rest of this decade include supplier and export credits, government guarantees, multilateral development bank financing, bilateral aid (almost always tied to donor-country suppliers), and countertrade.

An important emerging source of project financing is Japan's untied official development assistance (ODA). In 1993, the Japanese government announced that over the next 5 years it plans to increase its ODA to developing countries to $75 billion, 50 percent more than the $49.7 billion committed during 1989–93. Unlike most other donors, Japan has untied a large portion of its ODA. After a slow start, U.S. companies have begun to win sizable contracts through Japan's ODA, and many others, with their Japanese partners, have projects in the pipeline.

Given the large demand for and scarcity of resources, governments now give more attention to private infrastructure financing. To obtain this type of financing, the project must be supported by user fees or through government or public agency service contracts. Since the mid-1980's, more than 70 major public purpose infrastructure projects, valued at about $30 billion in 14 countries, have been developed and privately financed. At least 100 other similarly financed projects, with capital costs totaling about $160 billion, are in some stage of development in 33 countries. Although in the past investors have emphasized large projects (e.g., the $15 billion English Channel tunnel), in the future relatively small projects, such as sewage sludge disposal, water treatment, wastewater treatment plants, and other environmental facilities will likely be privately financed.

In addition to their ability to bring or attract early financing in the project, U.S. international engineering companies and constructors must be able to develop and arrange financing for feasibility studies and ensuing project implementation. Feasibility studies are fundamental to ultimate project implementation, particularly for larger projects. Here U.S. firms are at a severe disadvantage with major foreign competitors. Europe, Japan, and the advanced developing countries have well-funded government grants programs, which provide feasibility studies, and private-sector project consortia, which include major banking participation. Similar financing is limited in the United States.

Other factors could inhibit future U.S. success abroad. Lagging domestic research and development are likely to constrain U.S. success in international engineering and construction markets during the next 5 years. Although U.S. firms are usually successful in competing for design-build, turnkey, build-operate-transfer projects, where the constructor usually provides the lead, the Europeans and the Japanese compete successfully in projects where individual components are fitted together on a price-competitive basis. The Japanese, through their trading companies, price compete on every component, thereby winning projects that are assembled piece by piece. Until U.S. suppliers build the corresponding capability, they will be restricted largely to turnkey delivery projects, such as chemical, petrochemical, refining, and power, all of which will continue to be sensitive to changes in consumer demand.

Nevertheless, the global environment will continue to present unusual opportunities for U.S companies. During at least two decades of domestic environment cleanup activity, U.S. firms have acquired a unique expertise in lessening or preventing air, water, and soil pollution. In the foreseeable future, U.S. engineers, contractors, and equipment suppliers will find lucrative environmental management markets overseas. To fully develop these markets, wise suppliers are currently positioning themselves with additional overseas offices, local joint ventures, and expanded international marketing plans.

The cleanup of the world's environment will be one of the more significant global issues of the 1990's. Environmental projects will provide significant overseas opportunities for U.S. firms. Some environmental problems can be solved on a global basis and in partnership with governments and companies in both developed and developing countries.—*Robert L. Lurensky, Office of Energy, Environment, and Infrastructure (202) 482–4002, September 1993. Please direct inquiries about international construction to Mr. Lurensky. Inquiries on domestic U.S. construction should go to Patrick MacAuley (202) 482–0132.*

Additional References

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EXERCISES

1. Describe some of the distinguishing characteristics of construction contractors, specifically:

   a. Types of specializations within the construction industry.

   b. The types of legal and organizational structures commonly found in construction contractors.

   c. Unique characteristics of how contractors' business operations, such as key factors that enter in the bidding process, risks that accompany a construction contract, and the contractor's relationship with its surety.

2. Explain how the use of a subcontractor to perform some of the work on a job affects the general contractor's risk.

3. When are the activities of a homebuilder covered by the AICPA Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*?

4. Explain some of the reasons why a contractor would enter into a single-project joint venture.

SUGGESTED SOLUTIONS TO EXERCISES

1. Describe some of the distinguishing characteristics of construction contractors:

   a. The types of specializations.

   - Residential home builders
   - Commercial builders
   - Electrical or mechanical
   - Underground utility
   - Heating and air conditioning
   - Road builders
   - Excavators
   - Bridge builders
   - Tunnel borers
   - Demolition experts

   b. Types of organizational structures commonly encountered.

   - Corporations
   - Subchapter S corporations
   - Sole proprietorships
   - Partnerships
   - Joint ventures

   c. Unique characteristics of contractors' business operations, such as key factors that enter in the bidding process, risks that accompany a construction contract, and the contractor's relationship with its surety.

   - Work is normally performed on someone else's property, a location usually very far from the contractor's home office. Labor, supply, and mobilization problems can occur.

   - Because work is often performed at fixed prices, the bidding process is crucial to a profitable contract. It is essential that the contractor base his or her bids on realistic cost estimates, and that the contractor has the ability and capacity to complete the project on time.

   - Obtaining a contract involves bidding and negotiating in a competitive environment, which may decrease profit margins and increase risks of loss.

   - Each construction project is unique, which increases the contractor's risk of encountering unexpected matters or events that were not anticipated when the bid was prepared.

SUGGESTED SOLUTIONS TO EXERCISES (Continued)

- Construction work is often performed out-of-doors, increasing the contractors' risk of delays and damage due to weather. While builder's risk insurance provides some protection against catastrophe, other types of severe weather are not covered.
- Contractors are frequently required to provide owners with more than their contractual rights as protection against the possibility of nonperformance. Contractors are frequently required to post surety bonds.
- Contractors are expected to finance their work with progress payments from owners or from letters of credit. Banks rarely provide working capital loans for contractors.

2. Explain how the use of a subcontractor to perform some of the work on a job affects the general contractor's risk.

   The general contractor assumes the risk that the project will be completed on time and in accordance with specifications. However, the contractor's risk can usually be mitigated through subcontracts, especially if the subcontractors are reputable and bonded. Stated another way, a general contractor who performs all the work under a lump sum contract with his or her own labor is at the greatest risk whereby obtaining subcontracts diminishes the contractor's overall risk.

3. When are the activities of a homebuilder covered by the AICPA Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*?

   The activities of homebuilders that work under contract are covered by the SOP. However, the activities of a homebuilder that is constructing "spec homes" on his or her own property are not covered since there is no contract.

4. Explain some of the reasons why a contractor would enter into a single-project joint venture.

   The reasons a contractor might enter into a joint venture for a project include: (1) the contractor may not be able to finance or obtain a bond for the project; (2) the contractor may need additional expertise in the particular type of construction; (3) if the project is outside the contractor's usual area of operation, he or she may need a partner who is familiar with the working conditions, local customs, and labor market of the area; (4) the contractor may not have the capacity in terms of personnel to manage or complete the job.

THE SURETY RELATIONSHIP

Introduction

Surety bonds are required by law or regulation of political bodies and entities within our governmental system. With increasing frequency, bonds are required by private sector contracts. In satisfying bonding requirements, sureties provide a valuable service of direct benefit to the owner and to the integrity of the contract process.

Surety bonds prequalify contractors with respect to financial credit and performance. As a result, the underwriting and prequalifying process serves to protect the owner with regard to the contractor's ability to perform according to the terms of the contract. However, the most important economic service the surety performs is that of indemnification. The high degree of confidence inherent in the indemnification process is fundamental to the business of contracting and provides an incentive for its economic stability and growth.

Functions and Obligations of Suretyship

Sureties are used extensively by contractors — on virtually all public construction projects (federal, state, county, city, other political subdivision, etc.) and, with increasing frequency, on private sector construction. Suretyship is actually an extension of credit and not a type of insurance. The surety bond pricing structure recognizes this fact in that premiums are based on credit exposure, rather than on loss (or claim) exposure.

Suretyship involves three parties:

a. The contractor (or principal). This party can also be a subcontractor.

b. The owner (or obligee). This party can also be a general contractor.

c. The surety company (or guarantor).

Types of Surety Bonds

The three primary types of surety instruments used in the construction business are bid bonds, performance bonds, and labor and material payment bonds.

Bid Bonds. Bid bonds guarantee that, if the contractor is a successful bidder, he or she will enter into the contract and provide the performance bond called for by the contract. Bid bonds also *prequalify* the bidder. See "prequalification" section which follows.

Bid bonds are usually written to cover a specified fixed amount or a percentage of the bid price (typically 5%, but sometimes as high as 20%).

Performance Bonds. Performance bonds protect the owner from the contractor's failure to complete the contract in accordance with its terms. Performance bonds are usually written in an amount of either 50% or 100% of the contract price.

Labor and Material Payment Bonds. Labor and material payment bonds guarantee that the owner will pay labor and material suppliers the amounts due under the contract. Because workers and suppliers can place a lien on the project if they have not been paid, the labor and material payment bond ensures the owner that the completed project will be free of liens.

The existence of payment bonds relieves the supplier of credit risk, and as a result the supplier's bid price reflects this benefit. Sometimes these benefits, in the aggregate, exceed the cost of the bond. Labor and material payment bonds are generally written in amounts that correspond to the amount of the performance bond.

Prequalification

Before a surety company is willing to issue a bid bond, it performs a thorough evaluation of the contractor. This investigatory type of underwriting provides the owner a secondary benefit of a bid bond, and one that is often of greater value than its primary benefit. The owner can feel assured that unqualified contractors have been effectively screened out. Presumably, only qualified contractors will be able to produce a bid bond.

The contractor and its CPA should recognize that the surety performs extensive work to conclude on the contractor's technical and financial qualifications. The surety analyzes four major areas of a contractor before extending bonding credit typically called the "4 C's" which are (1) character, (2) capacity, (3) capital, and (4) considerations and conditions. Accordingly, the CPA should respect the surety's role rather than consider such activity "meddling."

The following are some of the most common problems construction contractors encounter in obtaining surety bonds:

a. Inadequate debt or equity capital (i.e., project size is large relative to the contractor's resources)

b. Weak or unreliable bidding procedures

c. Bad or questionable credit

d. Inadequate or questionable project management

e. Poor or incompetent overall management

f. Poor job cost estimating and accounting and/or a weak internal control structure

g. Poor budgetary and cost controls

h. Contractor is equipment-heavy relative to program size

i. Contractor has diversified into construction types for which he or she has no experience

j. Contractor has diversified into new geographic areas

k. History of little or no profit, or of erratic swings in profit

l. History of *profit fade* ("Profit fade" occurs when the profit originally estimated for a contract diminishes as the project nears completion.)

m. History of too much "bid spread" (amount of contractor's bid compared to next lowest bid)

n. Serious problems with jobs in progress

Most bond claims are either the immediate or eventual result of underbidding contracts. Often problems that result in bond claims on a project pervade the entire company, and in extreme circumstances the surety could take over the entire operation of a contractor.

The move away from using the completed contract method of accounting for income tax purposes has severely affected the liquidity of many contractors. As a result, surety companies will be alert for situations where the contractor must use working capital to pay income taxes as the work progresses. Further, banks generally avoid making working capital loans to contractors for payment of income taxes and to cover other operating cash needs.

Sureties are less reluctant to accept S Corporation status today than in the past. S Corporations have the potential for excessive distributions to shareholders and by nature, distribute their assets. A surety wants a company that has financial strength in the form of retained earnings. As a result, extensive personal guarantees may be required for S Corporations. S Corporation contractor can improve their chances for surety approval if distributions to shareholders are limited to amounts that would have been paid for C Corporation income taxes.

As stated earlier, surety bond premiums differ from insurance premiums in that bond premiums are viewed as amounts charged for the use of credit, rather than as funds provided to cover losses. Following this logic, sureties are striving for greatly reduced claims, not greatly increased rates. Underwriting decisions are far more selective.

Although the "4 C's" are still valid today, sureties have recently tended to place heavy emphasis on the substance and credibility of the contractor's financial statements and supporting financial schedules. In fact, CPAs' knowledge and understanding of their construction clients' unique accounting and financial reporting needs is a critical ingredient in successful surety bonding.

A Surety's Information Base

A listing of the types of information a surety may use to evaluate a construction contractor for bonding credit follows. It is important to recognize that frequently a local surety agent must "sell" the deal to the surety, who is usually geographically removed from the local agent.

- A business plan (some sureties now insist on a business plan). The business plan should contain financial projections with supporting narrative.
- A generic company history that includes the types of contracts worked on, joint venture arrangements, and any unusual undertakings and their results.
- A company work history over the past three to five years. For completed jobs, a comparison of actual profits with original estimates (adjusted for change orders), and the actual time required to complete the project versus the time originally estimated should be provided.
- A current organization chart.

- Resumes of key management personnel, including the project management team for the project under bid. The project manager's resume should provide capsule financial results of previous jobs he or she has managed.
- Plans for management succession in the event of death or disability of key personnel.
- Capsule historical financial summaries.
- Audited (as applicable) financial statements for the last three to five years.
- Job schedules for the last three to five years. The job schedules should tie to the historical financial statements.
- Information on the company's CPA should be included.
- Interim financial statements for the period subsequent to the date of the most recent audited financial statements.
- Interim job schedules that tie to any interim financial statements furnished, supplemented with narratives explaining unusual changes in estimate or other swings in profitability in their most favorable light.
- A description of the internal control structure, including job budgeting and job costing processes. Sample job accounting reports should be provided, as appropriate.
- Credit references, including bank references.
- A representative customer list (satisfied customers).
- Personal financial statements of owners/guarantors.
- A description of the current insurance in force. A surety is vitally interested in adequacy of insurance coverage.
- A list and description of significant claims or litigation pending, both for and against the contractor.
- A list of major items of both owned and leased equipment, if the contractor is equipment-intensive. The age of the equipment (machine hours) should be indicated.
- Income tax returns for the last three to five years. Explanation should be provided for any unusual income tax accruals that appear on the company's balance sheet.

In addition, the surety should be invited to meet key management personnel, visit job sites, and visit completed jobs. If the contractor's CPA is also present, the surety will have the opportunity to develop a relationship with the CPA personally.

Audited Financial Statements — Supplementary Information

Audited financial statements and supplementary information have become the key components for sureties when evaluating a company. Supplementary financial data customarily accompanies basic financial statements. The primary purpose of supplementary financial data is to permit the surety to perform analytical procedures on the company in making underwriting decisions.

Supplementary data that accompanies audited financial statements may be audited, reviewed, compiled, or unaudited, depending on the needs of the client and users of the financial statements. Regardless of the level of service applied to the supplemental data, it is important to distinguish between information that should be included in the basic financial statements and supplementary data. For example, consider the notion of presenting, on the face of the income statement, revenues from completed contracts separate from revenues from uncompleted contracts. (The question of whether this type of disclosure makes sense *anywhere* will be addressed below. Assume that this point is limited to the question of whether such disclosure, *if appropriate to be made*, belongs on the face of the income statement.) SAS No. 69 AU 411.04 states:

> The auditor's opinion that financial statements present fairly...should be based on his or her judgment as to whether...the information presented in the financial statements is classified and summarized in a reasonable manner, that is, neither too detailed nor too condensed...

Most practitioners agree that presenting a breakdown of revenues from completed contracts and revenues from uncompleted contracts in unnecessary for a fair presentation in accordance with GAAP. However, in analyzing financial statements, sureties and CPAs typically will separate contract revenues and costs for completed contracts from contract revenues and costs from uncompleted contracts. The reasoning is that such measurements for completed contracts are based on actual data, whereas measurements for uncompleted contracts is based on estimates. Following this reasoning, the overly-optimistic contractor will report a higher gross margin for uncompleted contracts than for completed contracts, due to the optimism pervading the estimating process. The reasoning continues that such dual presentations disclose the optimism in the uncompleted contracts and the "profit-fade" in the completed contracts.

The authors believe that such reasoning is flawed — they believe that presenting separate information for completed versus uncompleted contracts in the basic financial statements could lead users to believe that the company and the CPA are inferring that amounts for uncompleted contracts are less reliable. In reality, both completed and uncompleted contract amounts involve use of estimating techniques. For example, current year's financial information for a contract that began in a prior year and was completed in the current year is likely to include changes in the prior years' estimates.

As a result, any gross margin comparison of completed and uncompleted contracts can reflect large and erratic effects of changes in estimates in both categories, rendering the information useless, at best; and seriously misleading, at worse.

It is important to keep in mind that the above discussion is relevant when presenting financial information for only a single year of a multi-year contract. However, presentations of cumulative results of completed versus uncompleted contracts are extremely valuable for analytical purposes. Schedules 1 and 2 of Appendix 11A illustrate such analyses.

The questions remain, "What can be done to assist the surety in their analysis of the current year income statement? Can a meaningful analysis be made of what really happened during the year — for both completed and uncompleted contracts?"

Before answering this question, it would be helpful to examine the income statement taken as a whole. As discussed above, revisions in estimates of contract profits are included in the current year's income statement, and due to the nature of contracting, such revisions can be quite large. Paragraph 33 of Accounting Principles Board Opinion No. 20, *Accounting Changes*, recommends that the effect on net income of changes in estimates be disclosed, if material. Since this is only a recommendation, not a requirement — such a disclosure is rarely made. Even though this disclosure is rarely made in practice the authors believe that such disclosures are often meaningful.

Appendix 11A

Supplementary Information

Appendix 11A
Supplementary Information

Table of Contents

Independent Auditors' Report on Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary schedules 1 through 7 (see table of contents) are presented for purposes of additional analysis and are not a required part of the basic financial statements. The information in such schedules has been subjected to the auditing procedures applied in the audit of the basic financial statements, and, in our opinion, except for the conversions of the income statement (schedule 4) and job schedule (schedule 5) to performance-based pro forma presentations as explained in Note 1 to each such schedule, such information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

(Signature)

(Date)

Percentage Contractors, Inc.
Schedule 1
Contracts in Progress

December 31, 19X8

Contract		Total contract		From Inception to December 31, 19X8						At December 31, 19X8		For the year ended December 31, 19X8		
Number	Type	Revenues	Estimated gross profit (loss)	Revenues earned	Total costs incurred	Cost of revenues	Gross profit (loss)	Billed to date	Estimated cost to complete	Costs and estimated earnings in excess of billings	Billings in excess of costs and estimated earnings	Revenues earned	Cost of revenues	Gross profits (loss)
1845	A	$ 6,750,200	$ 877,000	$ 5,890,500	$ 5,244,500	$ 5,143,900	$ 746,600	$ 5,976,000	$ 628,700	$ 15,100	—	$ 5,664,200	$ 4,984,500	$ 679,700
1847	B	1,471,800	127,100	1,250,400	1,139,800	1,139,800	110,600	1,195,800	204,900	54,600	—	962,800	899,000	63,800
1912	A	451,800	(130,100)	108,600	238,700	238,700	(130,100)	98,100	343,200	10,500	—	98,600	191,500	(92,900)
1937	B	11,125,000	847,900	7,337,900	7,045,500	6,721,100	616,800	7,808,000	3,231,600	—	$ 145,700	6,981,900	6,469,900	512,000
1945	A	3,650,100	497,000	2,395,200	2,061,300	2,061,300	333,900	2,491,500	1,091,800	—	96,300	2,395,200	2,061,300	333,900
Small contracts		51,300	8,400	49,800	41,700	41,700	8,100	49,800	1,200	—	—	39,000	30,700	8,300
		$ 23,500,200	$ 2,227,300	$17,032,400	$15,771,500	$15,346,500	$1,685,900	$17,619,200	$ 5,501,400	$ 80,200	$ 242,000	$16,141,700	$ 14,636,900	$1,504,800

Contract types
A— Fixed-price.
B— Cost-plus-fee.

Percentage Contractors, Inc.
Schedule 2
Contracts Completed

Year Ended December 31, 19X8

Contract		Contract totals			Before January 1, 19X8			During the year ended December 31, 19X8		
Number	Type	Revenues earned	Cost of revenues	Gross profit (loss)	Revenues earned	Cost of revenues	Gross profit (loss)	Revenues earned	Cost of revenues	Gross profit (loss)
1511	B	$ 5,475,300	$ 4,802,500	$ 672,800	$ 3,223,400	$2,932,700	$ 290,700	$2,251,900	$1,869,800	$ 382,100
1605	A	695,000	880,900	(185,900)	596,100	558,100	38,000	98,900	322,800	(223,900)
1624	A	140,700	150,700	(10,000)	29,600	31,800	(2,200)	111,100	118,900	(7,800)
1711	A	2,725,100	2,391,700	333,400	1,654,100	1,510,000	144,100	1,071,000	881,700	189,300
1791	B	4,770,100	4,288,900	481,200	3,028,500	2,929,600	98,900	1,741,600	1,359,300	382,300
1792	A	635,000	457,900	177,100	—	—	—	635,000	457,900	177,100
Small contracts		413,400	349,500	63,900	32,100	25,900	6,200	381,300	323,600	57,700
		$14,854,600	$13,322,100	$1,532,500	$ 8,563,800	$7,988,100	$ 575,700	$6,290,800	$5,334,000	$ 956,800

Contract types
A — Fixed-price.
B — Cost-plus-fee.

Percentage Contractors, Inc.
Schedule 3
Earnings from Contracts

Year Ended December 31, 19X8

	Cost of revenues earned	Gross revenues earned	Gross profit (loss)	Profit (loss)
Contracts completed during the year	$ 6,290,800	$ 5,334,000	$ 956,800	$ 415,300
Contracts in progress at year-end	16,141,700	14,636,900	1,504,800	921,400
Management contract fees earned	121,600	51,800	69,800	1,700
Unallocated indirect and warranty costs	—	46,700	(46,700)	(38,100)
Minority interest in joint venture	—	128,000	(128,000)	(26,200)
Charges on prior year contracts	—	162,000	(162,000)	—
	$22,554,100	$20,359,400	$2,194,700	$1,274,100

Muscle Builders, Inc.
Schedule 4
Pro Forma Conversion to
Performance-Based Income Statement
(Purging 19X2 Income Statement of Effects of Changes in Estimates of Contract Profits)
For the Year Ended December 31, 19X2
(In Thousands of Dollars)

(See Independent Auditors' Reports on Supplementary Information)

	GAAP Basis	Pro Forma Adjustment Increase (Decrease) Profits	Adjusted to Pro Forma Presentation
Contracts revenues	$ 26,629	$ 1,448	$ 28,077
Cost of contract revenues	22,793	325	22,468
Gross profit	3,836	—	5,609
Selling, general and administrative expenses	1,126	—	1,126
Income from operations	2,710	—	4,483
Other income (expense), net	(46)	—	(46)
Income before income taxes	2,664	—	4,437
Provision for income taxes	1,000	(666)	1,666
Net income	$ 1,664	$ 1,107	$ 2,771
Return on Equity	0.05	0.03	0.08

Note 1: The purpose of the pro forma presentations made above is to purge the 19X2 income statement of the effects of changes in estimates of contract profits. By doing so, profits attributable to true contract performance (completed jobs) or the latest estimates of true contract performance (uncompleted jobs) are isolated.

Generally accepted accounting principles require that change in estimates of contract profits be reported in the year in which they become known. Accordingly, the pro forma information contained in the above schedule is at variance with generally accepted accounting principles.

Note 2: Contract revenues and costs of contract revenues are supported by the job schedules. All indirect costs are charged to contracts and, accordingly, are included in cost data shown in the supporting job schedules.

Muscle Builders, Inc.
Schedule 5
Pro Forma Conversion to Performance-Based Job Schedule (Note 1)
(Purging 19X2 Job Schedule of Effects of Changes in Estimates of Contract Profits)
For the Year Ended December 31, 19X2
(In Thousands of Dollars)

(See Independent Auditors' Report on Supplementary Information)

Contract Number	Costs of Revenues thru 12/31/X1	Revised Estimate (Jobs in Prog.) or Actual (Completed Jobs): Total Contract Costs	Percent Complete at 12/31/X1	Total Contract Revenues	Contract Revenues (Costs) Reported Thru 12/31/X1 (Note 2)	Pro Forma Contract Revenues (Costs) Thru 12/31/X1 (Note 2)	Pro Forma Adjustment thru 12/31/X1 Increase (Decrease) Profits	For the Year Ended December 31, 19X2: Contract Revenues Reported	Contract Costs Reported	Pro Forma Adjustment Increase (Decrease) Profits	Adjusted to Pro Forma Presentation
Contracts in Progress at December 31, 19X2											
0296	$ 1,220	$ 4,890	0.25	$ 5,420	$ 1,770	$ 1,352	$ (418)	$ 2,752	$ 2,860	$ 418 R	$ 310
0341	846	1,776	0.48	2,190	1,211	1,043	(168)	943	901	168	210
0355	47	582	0.08	452	10	10	—	99	—	—	99
					(47)	(140)	(93)	—	192	93 C	(99)
0361	1,149	7,081	0.16	9,311	1,553	1,511	(42)	7374	5,640	42 R	1,776
0362	996	2,101	0.47	2,403	1,411	1,139	(272)	587	751	272 R	108
Others*	52	84	0.62	102	77	77	—	18	15	—	3
	4,310	16,514		19,878	5,985	4,992	(993)(A)	11,773	10,359	993	2,407
Contracts Completed During Year Ended December 31, 19X2											
0272	5,611	11,424	0.49	14,841	7,940	7,289	(651)	6,901	5,813	651 R	1,739
0277	558	881	0.63	695	596	596	—	99	—	—	99
					(558)	(782)	(224)	—	323	224 C	(99)
0281	32	151	0.21	141	30	30	—	111	—	—	111
					(32)	(40)	(8)	—	119	8 C	(111)
0291	2,820	3,914	0.72	4,460	3,513	3,213	(300)	947	1,094	300 R	153
0293	3,497	7,110	0.49	8,916	3,982	4,385	403	4,934	3,613	(403) R	918
0311	—	1,172	0.00	1,421	—	—	—	1,421	1,172	—	249
Others*	401	701	0.57	983	540	540	—	443	300	—	143
	12,919	25,353		31,457	16,011	15,231	(780)(A)	14,856	12,434	780	3,202
Totals	$17,229	$41,867		$ 51,335	$ 21,996	$ 20,223	$ (1,773)	$26,629	$ 22,793	$1,773	$5,609

(See Notes next page.)

Note 1: The purpose of the pro forma presentations made above is to purge the 19X2 job schedule of the effects of changes in estimates of contract profits. By doing so, profits attributable to true contract performance (completed jobs) or the latest estimate of true contract performance (uncompleted jobs) are isolated.

Generally accepted accounting principles require that changes in estimates of contract profits be reported in the year in which they become known. Accordingly, the pro forma information contained in the above schedule is at variance with generally accepted accounting principles.

Note 2: For loss contracts, pro forma adjustments are made to cost of contract revenues. Accordingly, it is necessary to show cost data as well as revenues for such contracts.

Note 3: Contracts designated "others" in the above schedule are small contracts and charges on contracts completed in prior years. Pro forma adjustments have not been calculated for these items.

Note 4: The pro forma adjustments to increase 19X2 profits comprises a $1,448 increase in contract revenues ("R") and a $325 decrease in cost of contract revenues ("C").

(A) Amount of distortion

SCHEDULE 6

Muscle Builders, Inc.

Capital Expenditure Request for $100,000 Excavator

PROJECTED RETURN ON INVESTMENT

	19X1	19X2	19X3
Hours used	800	1,400	700
Investment revenues at $25/hour	$20,000	$35,000	$17,500
Investment maintenance costs:			
Repairs and maintenance (includes repair parts)	$ 1,600	$ 2,800	$ 2,800
Depreciation at $10/hour	8,000	14,000	7,000
Other	800	1,400	700
	$10,400	$18,200	$ 10,500
Contribution to investment carrying costs and profits	$ 9,600	$16,800	$ 7,000
Contribution rate	9.6%	16.8%	7.0%
Investment carrying costs:			
Insurance	$ 200	$ 200	$ 200
Taxes	200	200	200
Storage	500	500	500
Other equipment division costs	800	800	800
Equipment income			(20,000)
	$ 1,700	$ 1,700	$(18,300)
Before tax return on investment	$ 7,900	$15,100	$ 25,300
Taxes at 34%	2,686	5,134	8,602
After-tax return on investment	$ 5,214	$ 9,966	$ 16,698
Cost of debt capital, less tax benefit	2,400	2,200	
Return on equity capital	$ 2,814	$ 7,766	$ 16,698
Average equity capital	$40,000	$45,000	$100,000
Rate of return	7.0%	17.3%	16.7%
Discounted annual rate of return (computation not shown)			14.2%

SCHEDULE 7

Muscle Builders, Inc.
Equipment Division Statement of Income

July 19X1

	Combined		Excavator #86-4	
	Actual	Plan	Actual	Plan
Hours used	3,468	3,714	34	67
Investment revenues	$ 74,909	$ 82,822	$ 850	$ 1,675
Investment maintenance costs:				
Repairs and maintenance (includes repair parts)	$ 6,728	$ 7,279	$ 68	$ 134
Depreciation	31,559	34,169	340	670
Other	3,304	3,617	34	67
	$ 41,591	$ 45,065	$ 442	$ 871
Contribution to investment carrying costs and profits	$ 33,318	$ 37,757	$ 408	$ 804
Investment carrying costs:				
Insurance	$ 5,426	$ 5,500	$ 17	$ 17
Taxes	4,692	4,900	17	17
Storage	9,612	8,550	64	42
Other equipment division costs	11,420	10,200	81	67
Equipment income	(2,642)	(4,200)		
	$ 28,508	$ 24,950	$ 179	$ 143
	4,810	12,807	229	661
Unabsorbed equipment division costs	$ 1,814			
Before tax return on investment	2,996	12,087	229	661
Income tax	1,019	4,110	78	225
After-tax return on investment	1,977	7,977	151	436
Cost of debt capital, less income tax benefit	4,206	4,100	200	200
Return on equity capital	$ (2,229)	$ 3,877	$ (49)	$ 236
Average equity capital	$346,822	$340,000	$40,000	$40,000
Rate of return – annualized		13.7%		7.1%

Appendix 11B

AIA Surety Bond Forms

Table of Contents

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THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we
(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and
(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of
as Surety, hereinafter called the Surety, are held and firmly bound unto
(Here insert full name and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of

Dollars ($),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for
(Here insert full name, address and description of project)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this day of 19

(Principal) *(Seal)*

(Witness)

(Title)

(Surety) *(Seal)*

(Witness)

(Title)

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A312

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond: ☐ None ☐ See Page 3

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)

Signature: ______________________________
Name and Title:

SURETY
Company: (Corporate Seal)

Signature: ______________________________
Name and Title:

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY—Name, Address and Telephone)
AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation avail-

able to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12 DEFINITIONS

12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)

Signature: ______________________
Name and Title:
Address:

SURETY
Company: (Corporate Seal)

Signature: ______________________
Name and Title:
Address:

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A312

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond: ☐ None ☐ See Page 6

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)

Signature: ______________________
Name and Title:

SURETY
Company: (Corporate Seal)

Signature: ______________________
Name and Title:

(Any additional signatures appear on page 6)

(FOR INFORMATION ONLY—Name, Address and Telephone)
AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2 With respect to the Owner, this obligation shall be null and void if the Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3 With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4 The Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with the Contractor:

.1 Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

.2 Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and

.3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5 If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6 When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2 Pay or arrange for payment of any undisputed amounts.

7 The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this

Bond shall be construed as a statutory bond and not as a common law bond.

14 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15 DEFINITIONS

15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	(Corporate Seal)	Company:	(Corporate Seal)
Signature: ______________________		Signature: ______________________	
Name and Title:		Name and Title:	
Address:		Address:	

EXERCISES

1. What are the obligations of the surety in a bonding relationship?

2. What does "profit-fade" indicate to the surety?

SUGGESTED SOLUTIONS TO EXERCISES

1. What are the obligations of the surety in a bonding relationship?

   The primary obligation of the surety is its guarantee that the contract will be fulfilled. The surety will discharge this obligation in a variety of ways depending on the circumstances, such as:

   a. Advancing funds to the contractor

   b. Hiring a substitute contractor to complete the work, or

   c. Taking over the operations and management of the contractor to bring the construction work to a successful conclusion.

   This latter option is normally done in circumstances where all or substantially all of the contractor's work is bonded through this surety. Otherwise, the surety will look to the guarantors of the bond and sometimes others for remedies.

2. What does "profit fade" indicate to the surety?

   "Profit fade" signals that:

   a. The contractor has not estimated the work correctly,

   b. The contractor has not managed jobs well, or

   c. Some combination of both.

   In addition, the financial statements of the contractor could be overstating net income, working capital, and equity.

   A surety cannot expect a perfect tracking of actual job performance with estimates. Nevertheless, a consistent pattern of "profit fade" is cause for concern.

UNIQUE ACCOUNTING PRINCIPLES USED BY CONSTRUCTION CONTRACTORS

Introduction

Preparers of construction contractors' financial statements and their auditors must deal with a number of very unique and complex accounting issues — the primary one being the methods used to recognize revenues on long-term projects. The Guide and SOP 81-1 contain extensive discussions of use of the percentage-of-completion and completed contract methods. The percentage-of-completion method should be used in almost all circumstances because this method attempts to report income from contracts in the period of contract performance. On the other hand, the completed contract method should be used if: (a) contract terms or enforceability are seriously in question; (b) either the buyer or the seller (contractor) cannot reasonable be expected to fulfill his or her contractual obligations; or (c) estimates are not reasonably dependable or the contract is subject to hazards that cause estimates to be doubtful.

Some of the other unique accounting issues faced by contractors include: (a) balance sheet classification, (b) accounting for claims, (c) accounting for construction joint ventures, (d) classification of excess billings, (e) disclosure of revisions of estimates of contract profitability, and (f) difficulties of accounting for differences between financial statement and income taxes accounting methods.

Accounting for Contracts

Before the AICPA's Audit and Accounting Guide, *Construction Contractors* was issued in 1976, the primary authority for recognizing construction contract revenue was Accounting Research Bulletin (ARB) No. 45, *Long-Term Construction-Type Contracts*, paragraph 15, which states:

> The committee believes that in general when estimates of cost to complete and extent of progress toward completion of long-term contracts are reasonable dependable, the percentage-of-completion method is preferable. When lack of dependable estimates or inherent hazards cause forecasts to be doubtful, the completed contract method is preferable.

It is clear from this Bulletin that the percentage-of-completion method is preferred, but not required. Individual contractors made their own choice, with little consideration for the attributes of their construction business. Often, financial reporting would yield to income tax considerations out of fear that a conformity requirement was looming on the horizon.

In such a "free choice" environment, rational accounting judgments gave way to inconsistencies in financial reporting, and even to the use of hybrid methods, which modified and mixed attributes of the percentage-of-completion and completed contract methods. As a result, the confidence of the financial, surety, and investment communities became greatly eroded. All of this took place at a time when construction contracts were becoming larger and more complex, and contractors were facing increasing threats of claims and litigation.

It was in this environment in 1981 that the AICPA's Construction Contractors Committee updated the Audit and Accounting Guide, *Construction Contractors*, and issued Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*.

These documents provided guidance for applying ARB 45, particularly the terms "reasonably dependable estimates" and "inherent hazards" that cause estimates to be doubtful. Specifically, paragraph 26 of SOP 81-1 indicated that estimating is a unique and integral part of the accounting process in the construction industry and is dependent on making reasonable estimates. Revisions of estimates are frequently made and do not indicate a lack of reliability on previous estimates. SOP 81-1, paragraph 27 states, "a contractor's estimates of total contract revenue and total contract costs should be regarded as reasonably dependable if the minimum total revenue and the maximum total cost can be estimated with a sufficient degree of confidence to justify the contractor's bids on contracts."

According to ARB 45, the percentage-of-completion method should not be used if there are inherent hazards that make estimates doubtful. SOP 81-1, paragraph 28 defines inherent hazards as those that "relate to contract conditions or external factors that raise questions about contract estimates and about the ability of either the contractor or the customer to perform his obligations under the contract."

SOP 81-1 and the Guide clearly state that the percentage-of-completion method is preferable. They also give specific circumstances for use of each method:

Percentage-of-completion

- Reasonably dependable estimates can be made,
- The contract clearly specifies the enforceable rights for goods and services to be provided and received by the contractor and the owner, the consideration to be exchanged, and the manner and terms of settlement,
- The owner can be expected to satisfy his or her obligations under the contract, **and**
- The contractor can be expected to perform his or her contractual obligations.

Completed contract

- The effects on the contractor's financial position and results of operations using the completed contract method do not vary materially from the effects of using the percentage-of-completion method.
- The contractor cannot produce reasonably dependable estimates or there are inherent hazards that raise questions about the contract estimates and about the contractor's and owner's ability to comply with the terms of the contract.

Under both methods, contract losses should be provided as soon as they are evident, and the provision for loss should be based on an estimate of all remaining costs to complete.

Measuring Contract Progress

The three primary bases of measuring progress to completion on contracts are grounded in analyses based on costs, units of work, and value added (the contract value of total work performed to date). These methods can be further subdivided into input and output measures. The Guide defines input measures in terms of efforts devoted to a contract, including methods based on costs and on efforts expended, where output measures are based on results achieved such as units produced, units delivered, contract milestones, and value added. Although using input and output measures are both allowed by the Guide, output measures are in general better gauges of progress. Frequently output measures cannot be reasonably determined and, as a result, input measures are used. Input measures, as a result, have their foundation in the idea that profits on contracts originate from the contractor's efforts in all phases of the project, which might not necessarily be true.

An example of an input measure based on units of work is the direct labor hours method. In order to use this method, the total direct labor hours expended is compared to the total estimated direct labor hours on the project. That percentage is applied to the total estimated revenue to determine actual revenue earned on the contract.

If progress towards completion is measured based on apartment units completed, the auditor is using an output method based on units of work. In this case, as an apartment unit, or output unit, is finished, additional revenue is recognized.

For construction contractors, profit is not based on the amount billed on a contract as in classic accrual accounting but on the amount of the contract profit earned based on estimates. Variables going into the calculation are based on input measure (items that are **put into** a project), or output measures (items **resulting from** a project).

When selecting a measure to gauge progress, as discussed in the Guide, paragraph 2.21, weight should be given to all elements of a contractor's work including:

- Design of the project,
- Obtaining the necessary labor, materials, supplies, and equipment and mobilizing them at the construction site,
- Managing the resources to complete the project, and
- Demobilizing the resources from the construction site

Other Unique Accounting Issues

Balance Sheet Classification. Construction contractors belong to one of the few industries that have operating cycles that exceed one year. As a result, preparers of construction contractors financial statements, and their CPAs, face some interesting challenges.

Currently, the Guide allows contractors to use either a classified or unclassified balance sheet — a classified balance sheet is preferable for contractors whose operating cycle is one year or less; an unclassified balance sheet is preferable for contractors whose operating cycle exceeds one year. However, contractors with an operating cycle that exceeds one year are not precluded from presenting a classified balance sheet.

Generally, a contractor with an operating cycle that exceeds one year that presents a classified balance sheet will classify all contract-related assets and liabilities as current. To promote uniformity in practice, paragraph 6.08 of the Guide lists the follows contract-related assets and liabilities as those that *generally* may be classified as current:

- Contract-related assets include:

  a. Accounts receivable on contracts (including retentions)
  b. Unbilled contract receivables
  c. Cost and estimated earnings in excess of billings
  d. Other deferred contract costs
  e. Equipment and small tools specifically purchased for, or expected to be used solely on, an individual contract

- Contract-related liabilities include:

  a. Accounts payable on contracts (including retentions)
  b. Accrued contract costs
  c. Billings in excess of cost and estimated earnings
  d. Deferred taxes resulting from the use of a method of income recognition for tax purposes different from the method used for financial reporting purposes
  e. Advanced payments on contracts for mobilization or other purposes
  f. Obligations for equipment specifically purchased for, or expected to be used solely on, an individual contract regardless of the payment terms of the obligations
  g. Provision for losses on contracts

A word of caution: classification of assets and liabilities as current or noncurrent should always be based on whether they will be liquidated within the operating cycle. Mere designation of an asset as "contract related" does not necessarily mean it should be classified as current. As a result, careful consideration and judgment must be applied in classifying all assets and liabilities in a classified balance sheet.

Claims. Presently, guidance permits recognizing claims revenue in advance of realization if certain conditions are met. A permitted alternative is to delay recognition of claims revenue to the time of award, no matter how certain realization may be prior to award.

As a word of caution: some contractors who recognize claims receivable in advance of collection will also recognize a mark-up or profit element on these claims. Auditors of construction contractors should be aware that this accounting method is not in accordance with GAAP.

Customer-Furnished Material. Another unique issue faced by contractors is accounting for materials purchased by the customer for a project. Paragraph 60 of SOP 81-1 indicates that the value of customer-furnished material should be included in the contractor's financial statements in the following situations:

- The contractor is responsible for the nature, type, and characteristics or specifications of the material, or

- The contractor purchases the material as an agent of the customer, or

- The contractor is responsible for the ultimate acceptability of performance of the project based on such material.

In other words, the contractor would record the customer-furnished material as revenues and costs if the contractor bears an associated risk. Auditors of contractors should be alert for contracts in which customer-furnished materials are involved to ensure that the proper accounting treatment is used.

Financial Statement/Income Tax Differences. With enactment of the 1986 Tax Reform Act and subsequent income tax legislation affecting contractors, there has been a plethora of financial statement/income tax differences. A contractor's management information system is overburdened, if not smothered, with the magnitude and complexities of the differences. Moreover, non-compliance is wide-spread and even the ability of the IRS to administer its own rules has been brought into question.

There is no intention here that the accounting for financial statement purposes be driven by income tax rules. Nevertheless, common ground should be explored with a view towards easing the contractor's burden while possibly strengthening its financial reporting at the same time.

Appendix 25C which follows is entitled "Survey of Financial Statement/Tax Return Differences — Construction Contractors" contains a staggering list of 27 items and is by no means complete. Items included in Appendix 25C that should be emphasized are as follows:

- Item 4. Requirement of "cost-to-cost" method for tax.
- Items 8 and 9. Differences in costs included in both the numerator and the denominator of the "cost-to-cost" fraction — financial statements versus income taxes.
- Item 12. The income tax requirement to allocate even more costs to cost-plus and federal contracts if such costs are identified in the contract documents or federal regulations. The GAAP approach is diametrically opposite.
- Item 14. Research and experimental expenses — allocation differences.
- Items 16 and 17. Production period interest allocations: Differences between IRS Code Section 263A and Statement of Financial Accounting Standards (SFAS) 34, *Capitalization of Interest Cost.*
- Item 19. Differences in rules for "severing and aggregating" contracts for income tax purposes versus rules for "segmenting and combining" contracts for financial statement purposes.
- Item 20. Different recognition criteria for claim revenue.
- Item 21. Related services (architectural, engineering, etc.) which qualify for long term contract treatment for GAAP but do not qualify for income tax purposes.
- Item 23. "Look-back" interest. The possible need to accrue interest on the related income tax liability (based on estimates) in interim years of multi-year contracts.

General and Administrative Cost Allocations — Financial Statement and Income Tax Differences. The differences between financial statement and income tax allocation of general and administrative costs to contracts may be more definitional than real. Cost allocation rules of income tax law require that many general and administrative costs be allocated to contracts. For example, the portion of an officer's salary attributable to long-term contract activities would be allocated to contracts. GAAP may attain similar results, although it approaches the subject from the opposite direction. GAAP requires (with limited exceptions) that all general and administrative costs be expensed as incurred. But GAAP defines "general and administrative" sufficiently narrow to exclude costs — such as the contract-related portion of the officer's salary — which income tax rules would allocate to contracts, anyway.

GAAP considers costs that "cannot, as a practical matter be associated with any other period....[because] they provide no discernible future benefit" (SFAS 2, paragraph 48) and because they cannot be "clearly related to production" (ARB No. 43, Chapter 4, paragraph 5) to be general and administrative costs. It is unlikely that income tax law would require allocation to contracts of costs of a type that cannot be associated with any other period or that cannot be clearly related to production.

Revisions in Estimates of Contract Profits. It is the nature of construction that estimates of contract profits will have to be revised and that such revisions may occur with frequency and in large amount. There is an acute need for users of contractor financial statements to be able to distinguish between that portion of a contractor's net income attributable to real contract performance and that portion attributable to revisions in estimates.

The possibility of requiring disclosure of this type of information should be reassessed. This subject is developed further in schedules 4 and 5 of Appendix 11A.

APPENDIX 11C

Survey of Financial Statement/Tax Return Differences Construction Contractors

1. Losses incurred on loss contracts accounted for by the percentage-of-completion method are recognized pro rata over contract performance for income tax purposes. If the completed contract method is used for income tax purposes, such losses are accounted for when the contract is completed. For financial statement purposes, such losses are always recognized when known.

2. Certain IRS Code Section 460 contracts may be accounted for using hybrid methods on the income tax return (the "40/60", "70/30", or "90/10" methods) whereas the percentage-of-completion method may be used for financial statement purposes.

3. IRS Reg. 1.451 contracts may be accounted for using either the completed contract method, cash (subject to limits), or accrual methods on the income tax return, whereas the percentage-of-completion method is normally used on the financial statements.

4. The measure of percentage of completion may be made using the "cost-to-cost" method on the income tax return, but other methods (labor hours, etc.) may be used in the financial statements.

5. For IRS Reg. 1.451 contracts, the reverse could be true — "cost-to-cost" for financial statements and another appropriate measure of work performed for tax returns.

6. The "simplified cost-to-cost" method may be used for tax purposes on Section IRS Code 460 contracts accounted for by the percentage-of-completion method. The full "cost-to-cost" method or another appropriate method may be used for financial statement purposes.

7. The "simplified cost-to-cost" method may be used for tax purposes for Section IRS Code 460 contracts accounted for by the percentage of completion — capitalized cost method if the cash method is used as the "normal" method. Another appropriate method may be used for financial statement purposes.

8. For IRS Code Section 460 contracts, the numerator and the denominator used in the "cost-to-cost" fraction for income tax purposes may be different from the numerator and denominator used for financial statement purposes. Costs may be more fully absorbed into contracts for income tax purposes.

9. For IRS Reg. 1.451 contracts, the numerator and the denominator used in the "cost-to-cost" fraction for income tax purposes may be different from the numerator and denominator used for financial statement purposes. Different costs may be absorbed into contracts.

10. Irrespective of the "cost-to-cost" fraction, IRS Code Section 460 contracts may more fully absorb general and administrative costs for income tax purposes than for financial statement purposes.

APPENDIX 11C (Cont.)

11. Irrespective of the "cost-to-cost" fraction, IRS Reg. 1.451 contracts may absorb different general and administrative costs for income tax purposes than for financial statement purposes.

12. In addition to IRS Reg. 1.451-(3)(d)(6) extended period long-term contract costing rules, a taxpayer must allocate additional costs to contracts for income tax purposes if such additional costs are identified to the contracts in the contract documents themselves, or pursuant to federal regulations. For financial statement purposes, this additional cost allocation is not appropriate.

13. Bid costs may be assigned to contracts differently for financial statement purposes than for income tax purposes.

14. Research and experimental expenses are required to be allocated to Sec. 460 contracts, whereas such costs normally are expensed for financial statement purposes.

15. For IRS Code Section 460 contracts, depreciation and cost recovery allowances are allocated to contracts on the income tax return. For financial statement purposes, generally accepted accounting principals (useful lives) must be used.

16. Production-period interest is allocated to contracts differently by IRS Code Section 263A versus SFAS No. 34. One of the differences is the treatment of (a) net book value of production equipment.

17. For income tax purposes, a taxpayer may elect to treat all traced debt as "avoided cost debt", whereas, for financial statement purposes, the taxpayer may "trace" certain eligible debts to contracts.

18. For income tax purposes, a taxpayer may elect to capitalize "substitute costs" in lieu of having related parties or pass-through owners relate their own interest to the producer's contracts and capitalize it. This is not permitted under GAAP.

19. Contractors are now required to sever and aggregate their IRS Code Section 460 contracts (previously only the Commissioner could do this) and the income tax requirements for severing and aggregating are different from the financial statement requirements for segmenting and combining.

20. The income tax requirements for accounting for claims are different from GAAP requirements.

21. Income tax requirements preclude "services" from long-term contract treatment whereas GAAP permits "contract related services" to be accounted for using long-term contract methods. Among the services at issue are design engineering services and construction management services.

22. For income tax purposes, contractors not using a long-term contract method, and using a method of accounting involving inventories can, in some cases, be required to use the IRS Reg. 1.451-3.

APPENDIX 11C (Cont.)

(d)(6) extended period long-term contract costing rules. This method is not in accordance with GAAP.

23. GAAP may require the accrual of "look-back" interest liabilities (based on estimates) in interim years of multi-year contracts. Such accruals are not permitted by income tax rules.

24. For income tax purposes, home construction contracts entered into after June 20, 1988 by IRS Section 460 contractors are accounted for under IRS Code Section 263A, which precludes use of a long-term contract method. Such contracts can be considered long-term contracts for financial statement purposes.

25. For purposes of the alternative minimum tax, the "simplified cost-to-cost" method must be used to measure progress toward percentage completion. The "simplified cost-to-cost" method is not considered GAAP.

26. For AMT purposes, the Alternative Depreciation System (ADS) is used, which may differ from GAAP.

27. For AMT purposes, the contractor may elect to use ADS depreciation in the numerator and the denominator of the "cost-to-cost" or "simplified cost-to-cost" fraction, which differs from GAAP.

EXERCISES

1. Identify and explain the three primary methods to measure progress towards completion.

2. Are changes in estimates (APB 20) treated as corrections of errors in the financial statements? Explain your answer.

3. What makes accounting changes regarding construction contractors' income recognition so important?

SUGGESTED SOLUTIONS TO EXERCISES

1. Identify and explain the three primary methods to measure progress towards completion.

   The three primary methods used to measure progress towards completion consist of those related to costs, units of work, and value added. When measuring based on costs, the costs incurred are compared to the total estimated costs on the contract and revenue is recognized based on this on this ratio. This is a type of input method since the measurement utilized is a factor going into the project and not resulting from the project. Measuring progress based on units of work is an output measurement. Revenue is based on the total units completed compared to the total number of units contracted. Revenue to be recognized is based on the ratio of completed units to total units. An example of how revenue is recognized based on the value added to a project could be used when constructing a building. As a building is constructed, the value of the project increases. Revenue would be recognized based on the perceived value added to the project based on the work completed. This is an output measurement since the essence of the calculation is based on what results have been achieved. Because value added measurements are often difficult to obtain, input measurements (i.e., based on costs incurred) are frequently used instead.

2. Are changes in estimates (APB 20) merely corrections of errors? Explain your answers.

   No. A change in estimate is explicitly stated to be different from an accounting error.

   Notice that a change in accounting estimate is, no matter how large, *intrinsically generally accepted*. For example, if a contractor reports $4,000,000 in net income in the year of change, $300,000 of which is from a change in accounting estimate, there is no distortion of the income in the year of change or in the preceding year. Such changes are inherent in the process of preparing financial statements in accordance with GAAP, which invariably include estimates. In fact, the "zero profit" and "range of amounts" approaches to applying the percentage-of-completion method will by their nature result in large changes in estimates as the contracts near completion.

   Of course, if information were available in the earlier year that could and should have been used to make the accounting change then, and if that information had been overlooked or ignored, an accounting error would have resulted.

3. What makes accounting changes regarding construction contractors' income recognition so important?

   Because construction contractors often recognize revenues before they are realized, it is especially important that the accountant be sensitive to the changes in accounting estimates at the time they become known.

PLANNING AND IMPLEMENTING A CONSTRUCTION CONTRACTOR AUDIT

This section will describe techniques for planning an audit of two different construction contractors, and designing appropriate audit strategies.

The two hypothetical contractors are:

- Smallco Contractors, Inc. (Smallco), a small family-owned business, and
- Largeco Contractors, Inc. (Largeco), a large, diverse, publicly held contractor.

It is important to understand that the examples of audit procedures presented in this course are illustrative only, and are not intended to cover all possible procedures.

Auditing an Assertion

The account balances or transaction classes for which audit procedures will be illustrated throughout the audit chapters of this course are the "costs to complete" component of a contractor's "earned revenues". The assumption is made that both Smallco and Largeco are contractors using the percentage-of-completion method of accounting for revenue recognition and, further, that the "cost-to-cost" method is used to measure contract percentage-of-completion.

The measurement of revenues under the percentage of completion method is accomplished as follows:

$$\frac{\text{Costs Incurred to Date}}{\text{Costs Incurred to Date} + \text{Costs to Complete}} = \%\ \text{Complete}$$

$$\text{Total Estimated Revenues x } \%\ \text{Complete} = \text{Earned Revenues}$$

As can be seen, underlying the financial statement classification "Earned Revenues" is comprised of the following components:

(a) Costs Incurred to Date.

(b) Costs to Complete.

(c) Percentage of Completion (the arithmetic calculation).

(d) Total Estimated Revenues.

(e) Earned Revenues (the arithmetic calculation).

In addition to earned revenues, the following balance sheet accounts are developed, in part, from the contractor's determination of "costs to complete":

(a) Costs and estimated earnings in excess of billings, and

(b) Billings in excess of costs and estimated earnings.

As stated above, costs to complete may be viewed as a component of the transaction class, "earned revenues". This is most apparent if the contractor uses the "cost-to-cost" method for measuring the progress of a contract. Costs to complete is part of the denominator of the fraction from which earned revenues is derived.

And, while less direct, the component, "costs to complete" is also present when the contractor measures the progress on a contract using a basis other than the "cost-to-cost" method, and it is even present when the completed contract method of accounting is used. This is because costs to complete can and should influence measurements of job progress determined on other bases. For example, measurement of costs to complete can point to the need for a provision for loss on both the percentage-of-completion and the completed contract methods.

The discussions thus far have focused on auditing account balances or transaction classes. But, the audit process actually focuses on auditing the financial statement assertions, that is, management representations that are embodied in such account balances or transaction classes.

"Assertions" are classified and defined by SAS No. 31, *Evidential Matter*, paragraphs 3-8, as follows:

(a) Existence or Occurrence: Whether assets or liabilities of the entity exist at a given date and whether recorded transactions have occurred during a given period.

(b) Completeness: Whether all transactions and accounts that should be presented in the financial statements are so included.

(c) Rights and Obligations: Whether assets are the rights of the entity and liabilities are the obligations of the entity at a given date.

(d) Valuation or Allocation: Whether asset, liability, revenue, and expense components have been included in the financial statements at appropriate amounts.

(e) Presentation and Disclosure: Whether particular components of the financial statements are properly classified, described and disclosed.

Audits could be directed toward the account balance or transaction class; however, audit objectives can be more clearly defined and understood if directed toward distinct assertions of management embodied in such account balances or transaction classes.

The accounting component, costs to complete, embraces each of these five classes of financial statement assertions as follows:

(a) Existence or Occurrence: Did contract performance that management represents as "earned revenues" in the income statement actually occur during the accounting period?

(b) Completeness: Is the "cost-to-cost" fraction from which earned revenues are derived based upon a competent and complete determination of costs to complete?

(c) Rights and Obligations: Does the contractors have a right to collect from its customers costs and estimated earnings in excess of billings, and an obligation to its customers for billings in excess of costs and estimated earnings.

(d) Valuation or Allocation: Are management representations of contract costs to complete competently made and revised as frequently as necessary to achieve reasonable allocation of contract profit and losses among accounting periods?

(e) Presentation and Disclosure: Is management's financial statement disclosure of the cost-to-cost method and of cost revisions accurate?

Obtaining an Understanding of the Internal Control Structure

The second standard of fieldwork of AICPA generally accepted auditing standards is as follows:

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

The auditor obtains this understanding by determining:

(a) How internal control structure policies and procedures are designed, and

(b) Whether they have been placed in operation.

For the limited purpose of obtaining this understanding, the auditor need not be concerned with the operating effectiveness (or ineffectiveness) of policies and procedures. Sources of information that the auditor uses to obtain his or her understanding are:

(a) The auditor's previous experience with the entity,

(b) Inquiries of management and staff,

(c) Inspection of documents and records, and

(d) Observation of an entity's activities and operations.

The nature and extent of procedures the auditor uses to obtain the understanding is a matter of professional judgment, taking into consideration the size and complexity of the entity and other factors. A principal factor, however, is the preliminary audit strategy since it strongly influences the auditor's decision as to which internal control policies and procedures he or she undertakes to understand, and to what depth.

Documenting the Understanding. The auditor is required to document his or her understanding of the internal control structure. Depending on the size and complexity of the entity's internal control structure, this documentation can range from a simple memorandum to elaborate flowcharts and questionnaires. While the auditor is required to document his or her understanding, he or she is not required to document procedures performed to obtain the understanding. Completing the Contractors' System's Walk-Through Documentation Form in Chapter 5, and the Contractor's Internal Controls Questionnaire in Chapter 6 (for engagements in which the ABC System audit approach is used) of this manual will satisfy the requirement to obtain and document an understanding of the contractor's internal control structure.

Use of Nonfinancial Data to Obtain an Understanding. While financial data naturally come to mind when considering the requirement to obtain an understanding of the client's internal control structure, policies and procedures pertaining to nonfinancial data may also be relevant. Examples of nonfinancial data of a contractor that often relate to obtaining such an understanding include:

(a) Bidding documents, including "quantity take-offs", and other procedures for preparation and review of job estimates.

(b) Historical bid results, including bid spread, if available.

(c) Extent and frequency of job re-estimates, and results, including possible indication of "profit fade" at or near job completion.

(d) Completed job results, comparing actual costs, by activity, with costs on which bids were based.

(e) Historical success (or failure) of managers of current uncompleted work.

(f) Expiring union contracts and impending wage escalation.

(g) Adverse weather conditions, over and above bad weather normally expected and factored into job schedules and bids.

(h) Adverse conditions at job sites, including conditions not factored into the contract price at bid.

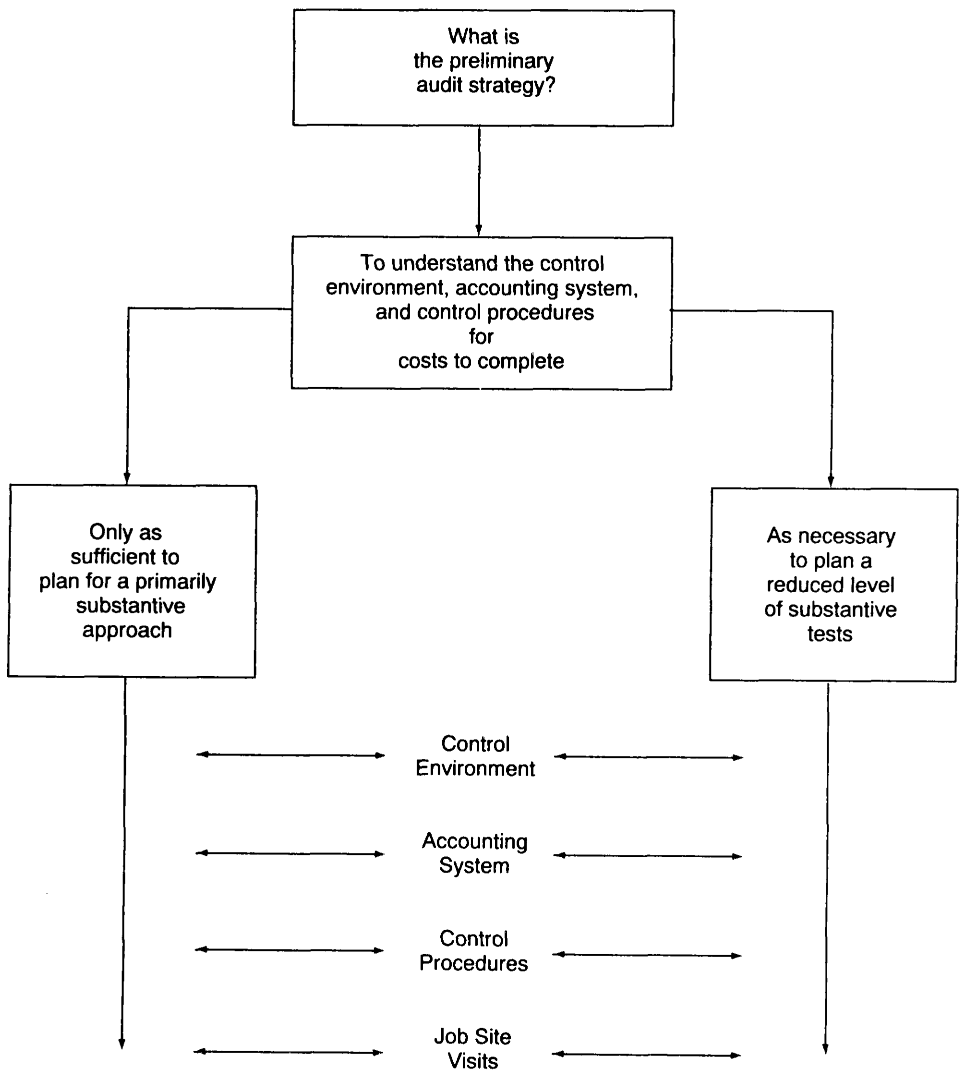
(i) Poor record-keeping at job site in support of (or in defense of) possible contract claims.

Illustration 11-1 ***Audit of Contract Costs to Complete Assertions*** illustrates the process an auditor might follow in planning and implementing an audit of a construction contractor.

Illustration 11-1

**Audit of
Contract Costs to Complete
Assertions**

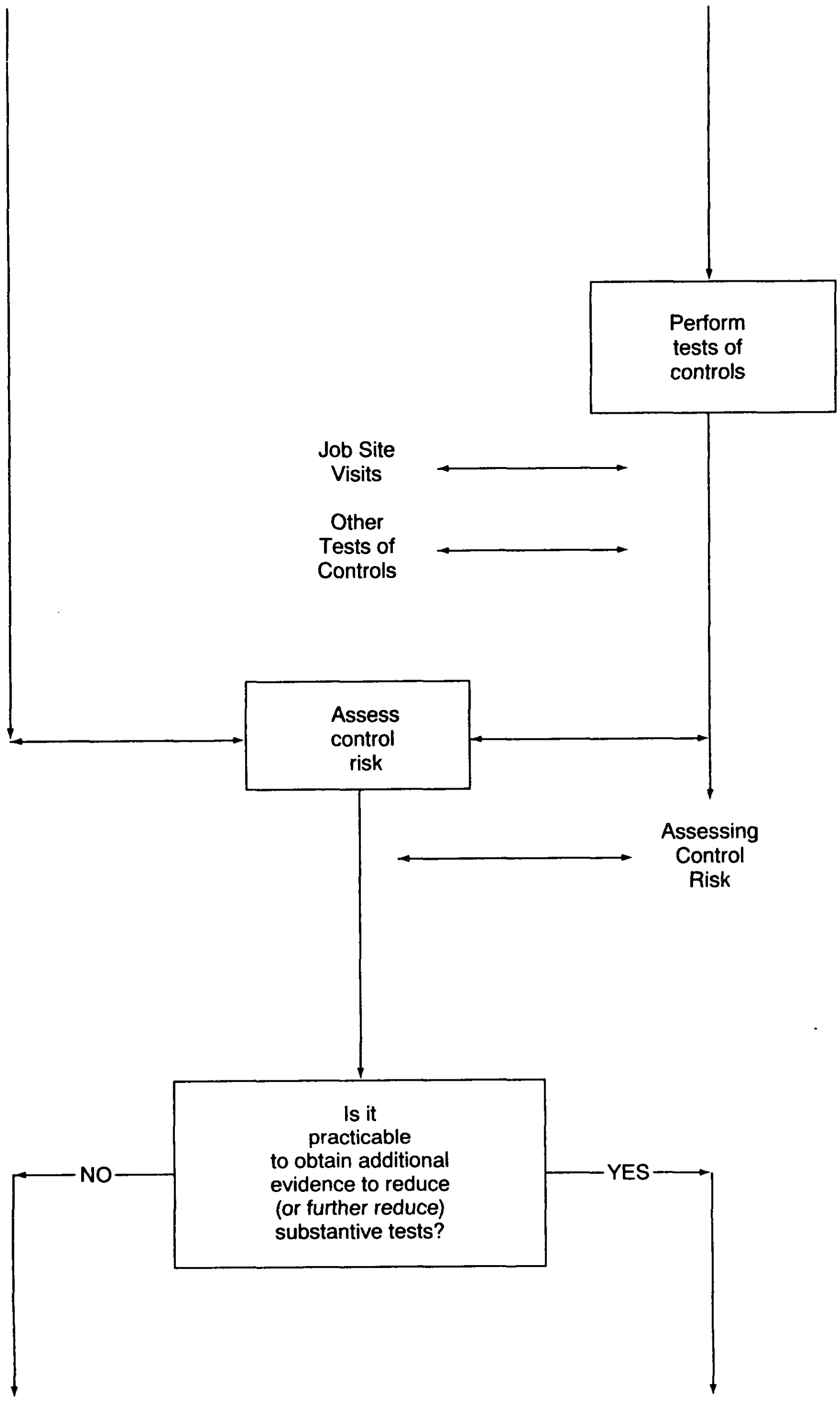
(Note: The information in this flowchart is representative of a number of acceptable audit approaches)



See notes to flowchart on page 11-71.

Illustration 11-1 (cont.)

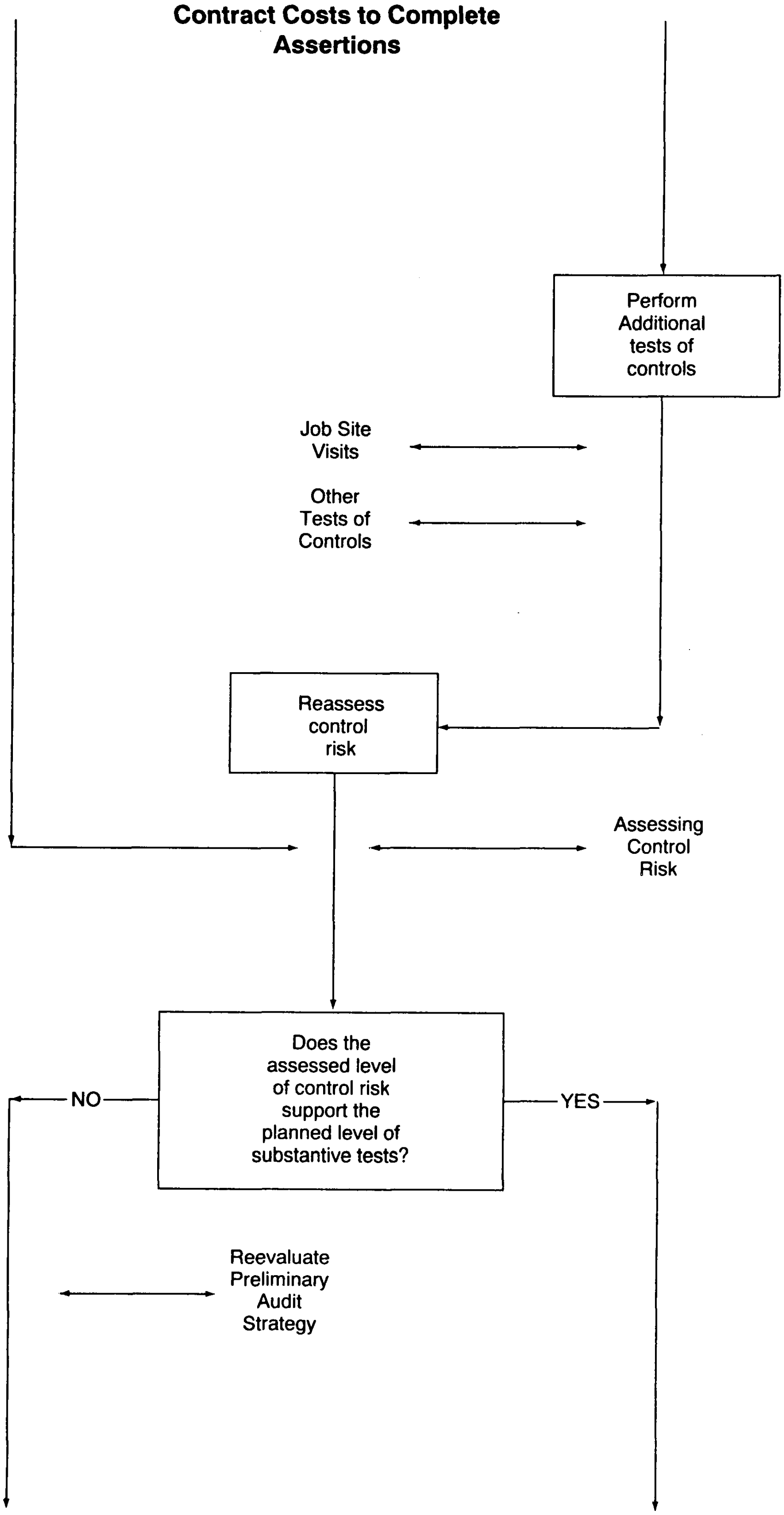
Audit of
Contract Costs to Complete
Assertions



See notes to flowchart on page 11-71.

Illustration 11-1 (cont.)

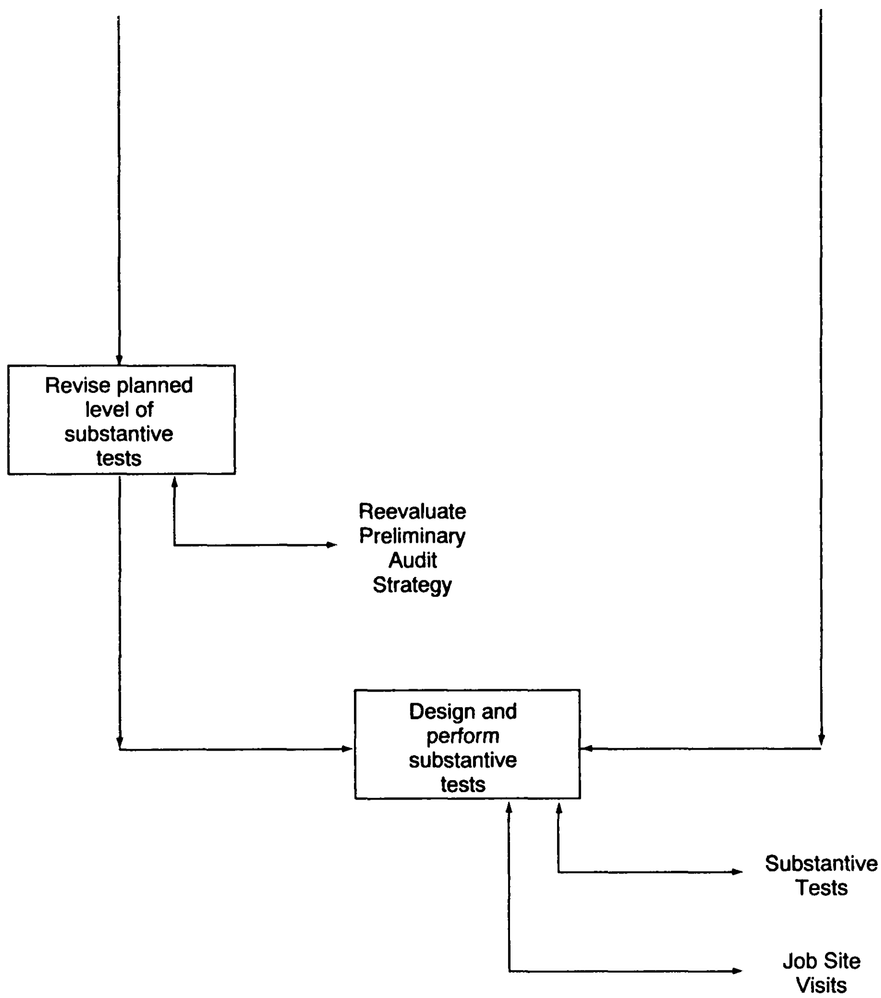
Audit of
Contract Costs to Complete
Assertions



See notes to flowchart on page 11-71.

Illustration 11-1 (cont.)

Audit of
Contract Costs to Complete
Assertions



See notes to flowchart on page 11-71.

Notes to Flow Chart

1. Documentation requirements are not illustrated.

2. A primarily substantive audit strategy will result in assessment of control risk at or near the maximum (procedures performed to obtain the understanding can sometimes serve as tests of controls, as well).

3. Job site visits appear more than once in the above chart as they can have attributes of more than one type of audit procedure.

Risk Assessment

In order to assess risk, the auditor must understand the components of audit risk, which include inherent, control, and detection risk. These risks are defined as follows:

- Inherent Risk — The susceptibility of an assertion to a material misstatement, assuming there are no related internal control structure policies and procedures.
- 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 structure policies and procedures.
- Detection Risk — The risk that the auditor will not detect a material misstatement that exists in an assertion.

The auditor needs to also be aware that inherent and control risk can be detected but not controlled, whereas detection risk can be both detected through testing and controlled by modifying such tests.

In planning the audit, the auditor must start with assumptions as to the level of control risk (and inherent risk). This is because the level of understanding needed depends on the assessed level of control risk. Thus, an auditor needs a preliminary audit strategy to ascertain the level of understanding to strive for. In the case of Smallco and Largeco, the procedures undertaken to obtain the understanding are different, primarily because:

(a) Smallco — The preliminary audit strategy for the "costs to complete" component of the transaction class, "earned revenue" is for a primarily substantive approach, assessing control risk at or near the maximum. The level of understanding of internal control structure policies and procedures need not be comprehensive.

(b) Largeco — The preliminary audit strategy for the "costs to complete" component of assertions embodied in the transaction class, "earned revenue" is directed toward use of a lower assessed level of control risk. The level of understanding of internal control structure policies and procedures will likely be more comprehensive than it would be for Smallco.

An increased understanding of the internal control structure sufficient to plan a primarily substantive audit approach might be supplemented if a lower assessed level of control risk is planned to include an additional understanding of the control environment, the accounting system, and control procedures.

A contractor's revenues are ordinarily comprised of the following components:

(a) Costs incurred to date.

(b) Costs to complete.

(c) Percentage of completion (arithmetic calculation).

(d) Estimated total revenues.

(e) Earned revenues (arithmetic calculation).

The five categories of assertions embodied in account balances or transaction classes are (1) existence and occurrence, (2) completeness, (3) rights and obligations, (4) valuation or allocation, and (5) presentation and disclosure. An audit is ordinarily directed toward these financial statement assertions, either by use of substantive tests or by a combination of substantive tests and tests of controls.

The second standard of fieldwork requires that an understanding of the internal control structure be obtained, even if a primarily substantive audit is to be performed.

Information about the contractor's internal control structure may include nonfinancial data, such as:

(a) Bidding documents, including "quantity take-offs," and other procedures for preparation and review of job estimates.

(b) Historical bid results, including "bid-spread," if available.

(c) Extent and frequency of job re-estimates, and results, including possible indication of "profit-fade" at or near job completion.

(d) Completed job results, comparing actual costs, by activity, with costs on which bids were based.

The three elements of an internal control structure are the control environment, the accounting system and the control procedures. The auditor's understanding to be obtained includes an understanding of the design of the internal control structure policies and procedures and whether it has been placed in operation.

EXERCISES

1. Your contractor client's construction division is waging all-out war with the accounting department. The division vice president knows that jobs are bid to return a profit and that jobs are well-run. Yet, accounting "brings the jobs in" at a loss.

   What could be the explanation? What are the implications?

2. How do the preliminary audit strategy, internal control structure and financial statement assertions interrelate?

3. When is the auditor required to document *procedures performed* to obtain an understanding of the internal control structure?

SUGGESTED SOLUTIONS TO EXERCISES

1. Your contractor client's construction division is waging all-out war with the accounting department. The division vice president knows that jobs are bid to return a profit and that jobs are well run. Yet, accounting "brings the jobs in" at a loss.

   What could be the explanation? What are the implications?

   The problem may be that the types of costs considered to be contract costs for bidding purposes exclude certain cost types charged to jobs for accounting purposes. These could be job overhead, general overhead, estimating and engineering costs and certain general and administrative cost allocations.

   The implications are that bids may have built-in losses. It would be an important audit step to investigate to see which department is accounting correctly for job costs. Bidding procedures may have to be revised.

2. How do the preliminary audit strategy, internal control structure and financial statement assertions interrelate?

   The auditor needs a preliminary audit strategy to ascertain what level of understanding to strive for. For example, if his or her preliminary audit strategy for a financial statement assertion is a planned assessed level of control risk below the maximum, tests of the internal control structure are needed.

   Both substantive audit procedures and tests of controls are directed toward financial statement assertions. The preliminary audit strategy relates to a financial statement assertion in that its design considers testing of the internal control structure policies and procedures pertaining to such assertion.

3. When is the auditor required to document *procedures performed* to obtain an understanding of the internal control structure?

   An auditor is required to document procedures performed only if they serve as tests of controls. An auditor is not required to document procedures performed to obtain the understanding. He or she should document the understanding of the internal control structure.

THE CONTRACTOR'S CONTROL ENVIRONMENT

Introduction

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. Certain control environment factors that may be particular to the construction contractor environment are stated below.

The control environment includes:

(a) Management's profit and cash flow objectives in bidding and accepting new work.

(b) Company history regarding reliability (or unreliability) of contract estimates.

(c) Management's philosophy regarding construction program size, particularly in relation to available working capital.

(d) Management's philosophy regarding diversity of construction project types.

(e) Management's philosophy regarding design-build work.

(f) Management's philosophy regarding geographic spread of work.

(g) Management's organizational structure as it relates to construction project management and control.

(h) Management's methods for controlling the progress of work put in place, including effectiveness of periodic project management meetings, if any.

(i) Relationships with sureties, lenders, owners, subcontractors, and unions. Includes factors such as a surety's limitations on bonding.

(j) Reputation in the industry for quality and timely work.

(k) Management's philosophy regarding prosecution of backcharges, ill-defined contract changes, and claims.

(l) State licensing requirements.

Pervasiveness of Control Environment Factors. Some of the control environment factors listed above pertain to the component of "costs to complete." However, because of the pervasiveness of control environment factors, they will frequently have applicability to the organization as a whole. For example, management philosophy regarding prosecution of backcharges, contract changes in question and claims, will likely influence the auditor's planned assessed level of control risk for the audit of accounts receivable. Once the auditor has obtained an understanding of the control environment factor for assertions relating to one account balance or transaction class, such understanding pertains to assertions relating to other account balances or transaction classes as well.

Understanding the Control Environment (Smallco)

Described below are certain key control environment factors that Smallco's auditor would consider in obtaining an understanding of Smallco's control environment.

(1) Management's profit and cash flow objectives in bidding and accepting new work.

(a) To a large degree, a contractor's financial statements are a reflection of his or her philosophy concerning profit and cash flow when he or she is bidding or accepting new work. A contractor with profit margins set too high is likely to have difficulty in maintaining a contract backlog and, thus, may evolve to be a going concern. Conversely, a contractor with profit margins set too low may experience uncontrollable backlog without adequate working capital and other resources to bring jobs to completion.

(b) A contractor who does not prepare adequate schedules of values in contract documents will likely experience cash flow problems as retainages and cash outlays may not be offset. He or she may resort to "robbing" cash from jobs starting up to use on jobs nearing completion, a practice that is unforgiving on even slight declines in backlog.

(c) Procedures an auditor might employ to gain an understanding of this internal control structure factor are (i) inquiries of management, (ii) inspection of records of job estimates, (iii) inspection of bid results made public, (iv) inspection of jobs in progress schedules (noting especially, "excess billings" or "underbillings"), (v) inspection of historical records of completed job results, and (vi) inspection of contract schedules of values.

(2) Company history regarding reliability or unreliability of contract estimates.

(a) Historical records of completed job results as well as historical financial statements tell much about this internal control environment factor. Of particular note are (i) instances of especially erratic contract performances and (ii) a history of incurring losses on the same or similar types of contracts.

(3) Management's philosophy regarding construction program size, particularly in relation to available working capital.

(a) Even in the best of circumstances, contracting is a high-risk business. A contractor who is "stretched too thin" will be hard-pressed to react appropriately to an unexpected problem at a job site. A principal gauge used by sureties in setting bonding limits is the relationship of program size to working capital — and for good reason. Without adequate working capital, a contractor may be unable to bring his or her jobs in on estimate. This eventually should be taken into account when a contractor recognizes profits on jobs in progress.

(b) In planning the audit, an auditor should understand the relationship of a contractor's work program to his or her resources. This understanding can ordinarily be obtained by inquiry and by inspection and analysis of current financial statements and backlog.

(4) Management's philosophy regarding diversity of construction project types.

(a) Contractors who diversify into different types of construction may be assuming greater risk. As a result, the auditor should be aware of such situations and the risks they might present.

(5) Management's philosophy regarding geographic spread of work.

(a) A contractor venturing to new geographic areas may find additional exposure, including relationships with subcontractors, suppliers, and unions. An auditor should consider whether these exposures have been controlled or otherwise factored into the bid price. Also, the auditor may want to review bid documents pertaining to such work.

(6) Management's philosophy regarding design-build work.

(a) Design-build work relates to contracts in which the contractor has responsibility for not just building the project, but also designing the project. Because these contracts are unusually complex, they carry a greater degree of risk than do contracts to build to someone else's design. Again, in planning the audit, the auditor should direct his or her attention to high-risk situations such as design-build work.

(7) Management's organizational structure as it relates to construction project management and control.

(a) Job progress can be managed effectively or ineffectively, formally or informally. Barometers of effective job management include well-defined lines of authority from project manager, to project engineer, superintendents, foremen and craft labor. The discipline of a well-organized construction project overflows into other elements of the internal control structure, such as a well-organized and run job site, effective scheduling and monitoring of job progress, and well-defined and harmonious relationships with owners, subcontractors and crafts.

(b) Construction project management and control need not always be formal to be effective. For example, in the case of Smallco, the owner-manager personally reviews and controls job progress informally. Because there are relatively few construction projects in progress at any one time, and because the owner-manager is competent, project management and control at Smallco is considered strong.

(c) An auditor can usually evaluate the effectiveness or ineffectiveness of project management and control by making inquiries and by inferences from records of contracts in progress and minutes of project management meetings. However, the best means of assessing the effectiveness of project management and control is ordinarily the job site visit.

(8) Management's methods for controlling the progress of work have been implemented, including effectiveness of periodic project management meetings, if any.

(a) This category is normally characterized by an effective marshalling of labor and materials to the project, an orderly arrangement of construction equipment and activities, appropriate precautions for safety of human resources, appropriate safeguarding of tools and equipment, absence of congestion or trade-stacking, (when workers in various trades must work simultaneously because of problems encountered, including inefficiencies, unplanned time constraints, and material shortages), and harmonious relationships (or well-fortified positions) with owners, subcontractors, crafts, and others.

(b) While the auditor can gain a degree of understanding of job site organization through inquiries, he or she ordinarily needs to corroborate this understanding with one or more job site visits.

(c) Effective job scheduling tells a contractor when a job is in trouble so that resources can be devoted promptly. Job progress can be measured in terms of costs incurred, labor hours or some other measure, as long as over or under-productive expenditures of effort are taken into account.

(d) A job's costs to complete are never the difference between the original or revised estimated total costs and costs incurred to date. Costs incurred to date may include inefficiencies or over-efficiencies that have to be taken into account. Instead, estimated costs to complete should be based on comparisons of where the job is with where it should be, regardless of the dollars or labor hours expended. Only then can costs to complete be estimated reliably.

(e) The auditor should review the contractor's methods of job scheduling and for determining costs to complete. For example, some would suggest that costs to complete be determined by estimating total contract costs and then subtracting costs incurred to date. This method is inappropriate if cost overruns are not taken into account. Instead, costs to complete should be calculated independent of costs incurred to date. Of course, job experience should always be considered when estimating costs to complete.

(f) Suffice it to say that a contractor's re-estimate of contract costs to complete are central to the financial reporting process.

(9) Relationships with sureties, lenders, owners, subcontractors, and unions, including factors such as a surety's limitations on bonding.

(a) The lifeblood of a contractor is his or her support relationships. Adversity with any one of these could put the contractor out of business. Curtailment of bank or surety credit or deterioration in owner/supplier or union relationships can have the same effect.

(b) An auditor can determine whether any problems exist in these relationships by reviewing banking and surety credit arrangements, by reviewing job status reports for deteriorating profits and financial statements for unfavorable trends. He or she can also study claims files for increased activity of an adversarial nature.

(10) Reputation in the industry for quality and timely work.

(a) Quality control problems affect financial statement assertions as to the possible need to accrue for rework, claims payable, liquidated damages, and other penalties. In a broader sense, they may impact the contractor's ability to continue as a going concern.

(b) Review of claims files and contract completion dates — actual vs. scheduled — can enlighten the auditor of problems in this area.

(11) Management's philosophy regarding prosecution of backcharges, ill-defined contract changes, and claims.

(a) Management may be either aggressive or conservative in pursuit of claims against owners and others. In addition, management may be either aggressive or conservative in giving financial statement recognition to claims receivable. An auditor needs to understand management's philosophy on both scores — pursuing and recording of claims—in order to be able to evaluate the related financial statement assertions of (a) rights and obligations, and (b) valuation or allocation.

(b) Out of fear of contract termination by default, a contractor may feel compelled to proceed on an area of disputed scope while reserving his or her rights. Unfortunately, this all too often means that the contractor's capital must carry the project. In all instances of disputed scope, it is important that the contractor's accounting system be able to segregate costs associated with the claim from costs associated with the base contract.

Understanding the Control Environment (Largeco)

The preliminary audit strategy for the audit of Largeco is to plan a lower assessed level of control risk because:

(a) Control policies and procedures exist that are likely to pertain to an assertion,

(b) Such control policies and procedures are likely to be effective, and/or,

(c) Audit efficiency would be improved if such control policies and procedures were tested with a corresponding reduction in substantive testing.

Largeco is also likely to have more sophisticated control environment features, such as highly segregated duties; formal business plans, budgets and cash flow projections; and internal auditors.

The discussions and examples provided for the auditor's understanding of the control environment of Smallco also apply to the control environment of Largeco. However, the auditor seeking a lower level of control risk may need to perform more extensive procedures, such as:

(a) Inspect documentation in support of contract re-estimates. Note controls used to promote accuracy. Note if management approves changes in estimates of contract profits in writing.

(b) Review minutes of project manager's meetings.

(c) Review job status reports noting any unusual underbillings or overbillings, or other unusual relationships.

(d) Review historical records of bid results for indication of bid spread.

(e) Inspect financial statements for:

1. Evidence of review and approval by management.
2. Overall indication of job margins realized.
3. A comparison of working capital with program size.

(f) Review organization chart, noting management functions and reporting relationships. Also review for segregation of duties.

(g) Review:

1. Business plans.
2. Budgets.
3. Forecasts.
4. Cash flow projections.

(h) Review exception reports, noting evidence of management follow-up and resolution of exceptions.

(i) Review one or more reports issued by the internal audit department.

(j) Examine employee turnover reports for indication of turnover and its influence on the overall competence of the internal audit staff.

(k) Inspect bid documents and underlying records.

(l) Inspect documentation in support of contract re-estimates. Note controls used to promote accuracy.

(m) Review contents of claims files.

(n) Observe job site management and control by visiting additional job sites.

To illustrate, Smallco is in the business of erecting metal buildings for commercial customers. Its jobs are generally three months or less in duration and, by the time the auditor completes fieldwork, all the jobs in progress at the balance-sheet date will have been completed or substantially completed. In these circumstances, estimated costs to complete can be tested by examining the actual costs incurred after the balance-sheet date using a primarily substantive approach. In such circumstances, the auditor's level of understanding of Smallco's estimating procedures need not be great.

On the other hand, Largeco builds commercial facilities that often take more than one year to complete. When the auditor performs year-end fieldwork, little progress may have been made towards completing jobs in progress at the balance-sheet date. As a result, the auditor may want to ensure that the contractor has reliable control policies and procedures over estimating costs to complete — in other words, the auditor will seek a lower assessed level of control risk, and a corresponding reduction in reliance on substantive testing of contracts in progress.

Summary

- The auditor is to obtain sufficient knowledge of the control environment to understand management's and the board of directors' attitude, and actions concerning the control environment.
- The auditor is to employ methods and procedures to obtain the understanding of the control environment.
- Control environment factors are pervasive, not directly identifiable with specific assertions embodied in account balances, transaction classes, and disclosure components of financial statements.
- The audit should comprehend the differences in levels of understanding needed for a primarily substantive approach and for an approach with a planned assessed level of control risk below the maximum.

EXERCISES

1. GAAS requires that auditors obtain an understanding of the entity's control environment sufficient to plan the audit. List some key features of a contractor's control environment that Smallco's auditor would need to understand.

2. In the audit of Smallco, the auditor need only have a basic understanding of the control environment. Because Largeco's auditor plans to assess control risk at below the maximum level, he or she must obtain a more in depth understanding of the control environment. What additional procedures (inquiries, observations, inspections, etc.) would Largeco's auditor perform to obtain this understanding?

SUGGESTED SOLUTIONS TO EXERCISES

1. GAAS requires that auditors obtain an understanding of the entity's control environment sufficient to plan the audit. List some key features of a contractor's control environment that Smallco's auditor would need to understand.

   The following are some key features of Smallco's control environment the auditor would need to understand.

   (a) Extent of owner/manager control.

   (b) Extent of segregation of duties.

   (c) The entity's history concerning the reliability or unreliability of estimates of contract profitability.

   (d) Management's philosophy towards entering into new types of construction projects.

   (e) Management's philosophy towards working in new geographic areas.

   (f) Job cost records that permit a comparison with the original estimate by job activity or task, and that are revised periodically.

   (g) The magnitude of claims pending — both claims receivable and claims payable.

   (h) Management's philosophy for recording claims receivable, i.e., aggressive or conservative.

   (i) Use of a cost accounting system that has the capability of segregating costs relating to claims and other changes from costs relating to the base contract.

2. In the audit of Smallco, the audit need only have a basic understanding of the control environment. Because Largeco's auditor plans to assess control risk at below the maximum level, he or she must obtain a more in depth understanding of the control environment. What additional procedures (inquiries, observations, inspections, etc.) would Largeco's auditor perform to obtain this understanding?

   (a) Inspect documentation in support of contract re-estimates. Note controls used to promote accuracy. Note if management approves changes in estimates of contract profits in writing.

   (b) Review minutes of project managers' meetings.

   (c) Review job status reports noting any unusual underbillings or overbillings, or other unusual relationships.

   (d) Review historical records of bid results for indication of bid spread.

SUGGESTED SOLUTIONS TO EXERCISES (Cont.)

(e) Inspect financial statements for:

1. Evidence of review and approval by management.
2. Overall indication of job margins realized.
3. A comparison of working capital with program size.

(f) Review organization chart, noting management functions and reporting relationships. Also review for segregation of duties.

(g) Review:

1. Business plans.
2. Budgets.
3. Forecasts.
4. Cash flow projections.

(h) Review one or more reports issued by the internal audit department.

(i) Examine employee turnover reports for indication of turnover and its influence on the overall competence of the internal audit staff.

(j) Inspect bid documents and underlying records.

(k) Inspect documentation in support of contract re-estimates. Note controls used to promote accuracy.

(l) Review contents of claims files.

(m) Observe job site management and control by visiting additional job sites.

THE CONTRACTOR'S ACCOUNTING SYSTEM

Introduction

An entity's accounting system includes the records established to identify, assemble, analyze, classify, record, and report an entity's transactions and to maintain accountability for the related assets and liabilities. The auditor should obtain a sufficient understanding of the accounting system to plan the audit of the entity's financial statements. In determining the nature and extent of the understanding of the accounting system in order to plan the audit, the auditor of a construction contractor would consider:

(a) Knowledge from previous audits.

(b) The complexity and sophistication of the entity's operations and systems, particularly the system over accumulating and revising information by job for contracts in progress.

(c) The degree to which accounting data is maintained and processed at remote locations such as job sites.

The Contractor's Accounting System

An accounting system for a construction contractor should have the following characteristics:

- Classifications of cost types are the same for estimating and accounting purposes.
- Allocation of contract costs of the correct contracts.
- Correlation of costs to complete with recorded costs (accounts payable cutoff).
- Integrated general ledger/job cost accounting.
- Methods and procedures for assigning general overhead to jobs.
- Methods and procedures for allocating production-period interest to jobs.
- Calculation of equipment rates for charging to jobs; timely revisions of rates; appropriate distribution of equipment yard profit or loss.
- Periodic re-estimation of job costs to complete, based on objective measurements, rather than on inappropriate reference to the original contract cost estimates.
- Comparison of job costs, by activity or task, with the estimates on which the bid was based.
- For completed jobs, comparison of job costs and profitability with original estimates.
- Calculation and isolation of effects of revisions to estimates.
- Appropriate identification and accounting for costs of contract changes, costs of claims, and pre-contract costs.
- Ability to comply with changes in accounting requirements.

Understanding the Accounting System (Smallco). Since the audit of Smallco will be a primarily substantive audit, the auditor need only have a basic understanding of Smallco's accounting system. The auditor's understanding would generally focus on:

(a) The classes of transactions that are significant to the financial statements.

(b) How those transactions are initiated.

(c) The primary accounting records, supporting documents, computer media, and specific accounts in the financial statements involved in the processing and reporting of transactions.

(d) The basic accounting processing involved from the initiation of a transaction to its inclusion in the financial statements, including significant computer applications.

(e) Methods used to prepare the entity's financial statements, including significant accounting estimates and disclosures.

In obtaining an understanding of Smallco's accounting system over accounting for earned revenues on contracts, the auditor would determine whether the accounting system provides the following information by job:

1. Costs incurred to date,
2. Estimated costs to complete,
3. Percentage of completion (arithmetic calculation),
4. Estimated total revenues, and
5. Earned revenues (arithmetic calculation).

Detailed records and documents supporting the above information could include:

(a) Suppliers' invoices.

(b) Subcontract agreements.

(c) Payroll time cards.

(d) Adjusting journal entries.

(e) Source documents — costs to complete.

(f) Historical records of job profitability.

(g) Documentation of job estimates.

(h) Documentation of bid results.

(i) Work-in-progress ledgers.

(j) Post-balance sheet cost activity.

(k) Source documents — estimated total revenues.

(l) Contract files (including incentives, penalties, liquidated damages, etc.)

(m) Change orders.

(n) Claims and claims files.

(o) Conversion of documents to computer media.

(p) Documents created and further processed.

(q) Relevant accounting reports, journals, and ledgers.

(r) Voucher register.

(s) Payroll register.

(t) Shipping and receiving documents.

(u) Job cost reports.

(v) A "measured mile" comparison of actual costs with revised estimates.

(w) Historical records of bid results.

(x) Historical records of job profitability.

(y) Records of contract backlog.

(z) Documented records supporting calculations of contract changes in estimates.

Understanding the accounting system also involves understanding what information is used for processing and when processing occurs. For example, the auditor, when considering the completeness assertion, may need to understand whether backcharges entered into a computer are properly batched or otherwise controlled for processing.

The financial reporting process includes understanding the accounting estimates central to the contractor's financial statements prepared using the percentage-of-completion method of accounting. The auditor should understand how the client prepares these estimates, and the level of supporting documentation involved.

Understanding the Accounting System — Largeco. For the audit of Largeco, the auditor must obtain a more in-depth understanding of the accounting system in order to support a planned lower assessed level of control risk. The above list of source and/or supporting documents in support of Smallco's costs incurred to date is quite lengthy since it is possible that all such items would exist in a small contractor environment. These documents would also generally be found in Largeco's accounting system.

However, for Largeco, the auditor will find some additional features of the accounting system. In particular, Largeco would have accounting system policies and procedures over allocation of overhead to jobs. Also, because Largeco's contracts tend to be longer term than Smallco's, its system for developing and revising accounting estimates would be much more extensive. For example, Largeco's system over contracts in process may consist of more elaborate methods for classifying and allocating costs to contracts (including allocation of overhead), for monitoring actual versus estimated costs, and for measuring contract completion.

EXERCISES

1. GAAS requires that auditors obtain an understanding of the entity's accounting system sufficient to plan the audit. List some key features of a contractor's accounting system that Smallco's auditor would need to understand.

2. What additional features would the auditor find in Largeco's accounting system?

SUGGESTED SOLUTIONS TO EXERCISES

1. GAAS requires that auditors obtain an understanding of the entity's accounting system sufficient to plan the audit. List some key features of a contractor's accounting system that Smallco's auditor would need to understand.

   The auditor's understanding would generally focus on:

   (a) The classes of transactions that are significant to the financial statements.

   (b) How those transactions are initiated.

   (c) The primary accounting records, supporting documents, computer media, and specific accounts in the financial statements involved in the processing and reporting of transactions.

   (d) The basic accounting processing involved from the initiation of a transaction to its inclusion in the financial statements, including significant computer applications.

   (e) Methods used to prepare the entity's financial statements, including significant accounting estimates and disclosures.

2. What additional features would the auditor find in Largeco's accounting system?

   Some of the additional features would include:

   - Allocation of overhead to jobs.
   - Elaborate system for developing and revising accounting estimates.
   - Extensive policies and procedures for classifying and allocating costs to contracts.
   - Detailed records of actual versus estimated (bid) costs by job.
   - Uniform methods for measuring contract completion.

THE CONTRACTOR'S CONTROL PROCEDURES

Introduction

Control procedures in a construction contractor environment pertain to such things as:

- Segregation of duties 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, including assigning different people the responsibilities of authorizing transactions, recording transactions, and maintaining custody of assets.
- Adequate safeguards over access to and use of assets such as small tools and equipment.
- Periodic inventories of tools and equipment.
- Balancing of equipment ledger with general ledger control account.
- Balancing of job cost ledger with general control account.
- Independent approvals of accounting distribution and job distribution.
- Periodic independent verification of cost types considered by estimating to be contract-related.
- Monthly (or more frequent) project management reviews of job cost reports, comparing to budget.
- Design and use of adequate documents and records to help ensure proper recording of transactions and events, such as monitoring the use of prenumbered shipping documents.
- Independent checks on performance and proper valuation of recorded amounts, such as clerical checks, reconciliations, comparisons of assets with recorded accountability, computer-programmed controls, management review of reports that summarize the detail of account balances (for example, an aged trial balance of accounts payable), and user review of computer-generated reports.

Understanding Control Procedures — Smallco. To obtain a basic understanding of Smallco's internal control structure procedures, Smallco's auditor's would consider:

(a) Knowledge obtained from previous audits.

(b) The auditor's understanding of the construction industry.

(c) Assessments of inherent risk.

(d) Judgments about materiality.

(e) The complexity and sophistication of the entity's operations and systems.

Because some control procedures are integrated in specific components of the control environment and accounting system, as the auditor obtains an understanding of that environment and system he or she is also likely to obtain knowledge about some control procedures. In the case of Smallco, the auditor generally should obtain an understanding of the following key control procedures:

(a) Controls over the process for preparing accounting estimates, including reperformance, independent review and approval, and use of an historical database of the company's unit costs.

(b) Procedures for documenting, reviewing, and approving changes in contract estimates of costs to complete.

(c) Procedures over measuring and monitoring contract progress toward completion, generally through use of job schedules.

(d) Documentation of potential claim situations, including submittals, correspondence files, job diary, "as bid" vs. "as built" schedule.

(e) Controls over company assets maintained at job sites and transactions processed, in whole or in part, at job sites.

Understanding Control Procedures — Largeco. For the Largeco audit, the auditor seeks to support a lower planned assessed level of control risk by testing control procedures rather than performing substantive testing as extensively as would otherwise be required. For example, an auditor may wish to understand control procedures over the process of preparing estimates in greater depth. In addition to the basic understanding of control procedures obtained for Smallco, Largeco's auditor would document only the control procedures related to the assertions for which control risk will be assessed at a lower level. It may not be necessary to obtain an additional understanding of every assertion. For example, the auditor's attention may be directed towards understanding Largeco's control procedures over the completeness and valuation assertions related to earned revenues.

Computer Controls

Because many control procedures involve computer applications, the auditor may need to consider control procedures over program development, program changes, computer operations, and access to programs and data. These control procedures increase the assurance that programmed control procedures operate effectively during the period. Computer application control procedures include:

(a) Programmed control procedures related to specific computer applications and that are embedded in the computer program used in the accounting system.

(b) Follow up by independent employees of items listed in computer exception reports.

(c) The effectiveness of application control procedures that involve manual follow-up of computer reports that depend on the effectiveness of both the programmed control procedures that produce the exception report and the manual follow-up procedures.

User control procedures to test the completeness and accuracy of computer processed transactions include manual checks of computer output against source documents or other input, and thus provide assurance that programmed aspects of the accounting system and control procedures have operated effectively.

Control procedures are those policies and procedures, in addition to the control environment and the accounting system, that management has established to provide reasonable assurance that specific entity objectives will be achieved.

EXERCISE

Identify some audit procedures that may be used to obtain an understanding of control procedures over a contractor's bidding and estimating function. First, identify audit procedures that may be used for Smallco. Next, supplement this list with additional audit procedures that may be used for Largeco.

SUGGESTED SOLUTIONS TO EXERCISE

Identify some audit procedures which may be used to obtain an understanding of control procedures over a contractor's bidding and estimating function. First, identify those audit procedures which may be used for Smallco. Next, supplement this list with additional audit procedures which may be used for Largeco.

Smallco:

1. Inquire and/or observe as to whether strong owner/manager control exists. How much time does the owner spend at the job sites?

2. Review completed job reports generated by the accounting system. Are the reports useful for a historical line item comparison of current job profitability with previous job profitability? Are these comparisons being made? Are they useful as a database for future estimates?

3. Does the bid process contemplate anticipating a contractual schedule of values upon which contract billings are to be based? Does the bid price reflect imputation of interest in circumstances where the billings are not "front-ended" as much as company policy would expect?

4. Are contract re-estimates done thoroughly or are they "ball-parked"? Review the re-estimates procedures. Consider if and how they impact future estimates.

5. Are the manual processes in the estimating function subject to reperformance? Inspect initials, and review exception reports or other data demonstrating that this reperformance is taking place.

6. Does the estimating department have updated and reliable information as to vendor prices? Describe procedures.

7. Does the estimating department maintain a historical database on vendors and subcontractors? Review this record.

8. Are significant change orders subject to the same estimating procedures and controls that base contract are? Review an example?

Largeco:

1. Is there manual follow-up on computer exception reports? Review one or more such reports and the resolution of the exceptions indicated.

2. Are development of new computer programs and systems subject to testing by persons independent of the programmer? Review evidence of such testing.

3. Are computer programs, files and other data safeguarded? Is access to computer operations restricted?

SUGGESTED SOLUTIONS TO EXERCISE, CONTINUED

4. Inquire of management of the extent of their review of job cost reports. Note evidence of such reviews, if available, by initials or otherwise. If large variances recur, ascertain whether their effects are considered in making future estimates.

5. Review job cost variance reports. Do project managers review these reports and provide answers for unusual variances? If large variances occur, is this information communicated to the estimating department?

6. Are job costs charged to jobs periodically reviewed by an independent person? For one or more jobs, review the results of such work.

TESTS OF CONTROLS AND SUBSTANTIVE TESTS

Tests of Controls

If the auditor assesses control risk at the maximum, all audit evidence would be obtained from obtaining the understanding of the internal control structure and from performing substantive tests. If the auditor seeks a lower level of control risk for a financial statement assertion, he or she should:

(a) Identify specific internal control policies and procedures are likely to prevent or detect material misstatements in such assertion,

(b) Perform tests of controls to evaluate the effectiveness of such policies and procedures, and

(c) Document the tests of controls in the workpapers.

Control risk should be assessed for each major financial statement assertions. If the auditor seeks to assess control risk at a lower level for a particular assertion, the relevant internal control structure policies and procedures must be identified and tested.

Sometimes as an audit progresses, evidential matter obtained over its course serves to corroborate the auditor's assessment of control risk for a particular assertion. However, sometimes the opposite is true to the point that the auditor's initial assessment of control risk is brought into question. In such situations, the auditor should attempt to reconcile the conflicting pieces of evidence and resolve differences. Failing this, the auditor should reassess the level of control risk for the particular assertion and redesign his or her substantive tests.

In obtaining the understanding of internal control structure policies and procedures, the objective is to understand their design and whether they have been placed in operation. But, in assessing control risk, the operating effectiveness of such policies and procedures are addressed. Obviously, control risk is a function of the operating effectiveness (or ineffectiveness) of policies and procedures underlying a contractor's internal control structure.

Nature, Timing, and Extent. Controls can be tested through:

(a) Inspection of documents.

(b) Observation (controls for which documentation is not available such as segregation of duties).

(c) Reperformance (includes computer-assisted audit techniques).

(d) Inquiry (but inquiry alone is usually not sufficient evidence to support a lower level of control risk).

Because of the long-term nature of construction contracts, the auditor should be familiar with the controls tested in prior years, and the continuing competence of evidential matter. To evaluate the use of prior periods' evidential matter for the current audit, the auditor should consider:

(a) The significance of the assertion involved.

(b) The specific internal control structure policies and procedures that were evaluated during the interim period.

(c) The degree to which the effective design and operation of those policies and procedures were evaluated.

(d) The results of the tests of controls used to make those evaluations.

(e) The evidential matter about design or operation that may result from substantive tests performed in the current audit.

The more evidential matter gathered in support of an assertion, the greater is the auditor's assurance that a control is operating effectively. For example, a single job site visit may not be sufficient to provide the auditor with reasonable assurance, partially because it is performed at a single point in time. As a result, the auditor may wish to expand his or her scope to obtain more documentary evidence, or may want to make the same inquiries to more than one person.

Illustration 11-2

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
Control Environment:		
Program size/working capital	Limited resources jeopardize completion of jobs in progress and bondability of future work.	Adequate to plentiful working capital, net quick assets.
Net quick assets/excess billings	Very little liquidity, large balances carried in excess billings. Indicates jobs are being financed on a "rob Peter to pay Paul" basis.	There is no imbalance between liquid assets and excess billings.
Management's philosophy concerning volume	Attempts to cover overhead and return a profit with volume.	Is profit-oriented rather than being volume oriented; strives to reduce overhead.
Management's philosophy concerning mix of work	Constantly attempting to diversify into unfamiliar types of construction in keeping with their "volume" philosophy.	Proceeds on a pace of gradual growth by building a reputation in what they do best.
Management's philosophy concerning areas of work	In keeping with "volume" philosophy, constantly seeks new work in areas where they are unfamiliar with the risks.	Stays within geographic area where they know unions, suppliers, and subcontractors.
Management's philosophy concerning design-build work	Offers "turnkey" services, including design-build.	Will not assume design responsibilities.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
Control Environment:		
Management's philosophy concerning prosecution of claims	Undisciplined and misguided. Revenue is lost on the one hand; relationships strained, on the other.	A business approach is taken, striving to receive amounts to which they are entitled without unwisely jeopardizing future invitations to bid.
Record of employee retention, particularly project managers.	Heavy turnover due to unsophisticated and largely unguided personnel policy.	Compensatives and incentives are designed to keep talented managers.
Productivity management, including scheduling, supervision, and training.	Formalized job schedules developed at the start of jobs are not kept current; jobs are run on a "bust-out" basis. Supervision and training is weak; relations with unions, poor.	Formalized schedules are subject to disciplined controls. Supervision and training, union relations are strong.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk At or Near Maximum-Conditions Cited	Moderate or Low-Conditions Cited
<u>**Control Environment**</u>:		
Contract Attributes:		
Contract type	Fixed price.	Cost-plus.
Adequacy of design	Plans are insufficient; contractor must await revisions/additions.	Plans are complete.
Disputes	Resolved at end of job; contractor continues working to avoid default termination, and must employ his own resources, holding out for eventual reimbursement at conclusion of job.	Changes are identified and change orders are processed on a timely basis.
Bid spread	Large amount "left on table"	Very close bid among three or more bidders, competitors' bids serve to corroborate the accuracy of the contractor's bid.
Project term	Tight; strains resources. Liquidated damages clauses. Requires "Fast tracking."	Comfortable time frames; no liquidated damages.
Performance leverage	Substantially all work done by internal work force.	Substantially all work done by subcontractors.
Community relationships, including lenders, owners, subcontractors, etc.	Generally poor.	Generally strong.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk At or Near Maximum-Conditions Cited	Moderate or Low-Conditions Cited
<u>Control Environment</u>:		
Reputation in the industry	Generally poor. Quality of work erratic; questionable commitment to warranty obligations.	Commitment to quality is well-known. Much work is negotiated rather than bid.
Historic reliability of job estimates	Erratic; forecasts are doubtful.	While large variances occur from time to time, there is a reliable trend.
Bondability; relations with sureties	Reluctant to provide financial data to surety, partly because it is detrimental to their cause. Relations are strained.	Relations are open and forthright. Bonding capacity is strong.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
<u>Accounting System</u>:		
Job Cost Accounting:		
Cost classification	Classifications contain numerous errors; costs are sometimes charged to the wrong contract.	Errors in coding or charging contracts are rare.
Contract changes	No separate identification is made.	Accounting codes are given and accumulated separately. The option of prosecuting claims is preserved.
Reports	Job cost reports do not provide for a detailed comparison of job costs with the costs used in the bid.	Job costs reports compare, by task or activity, actual costs with costs used in the bid. Comparisons are made to revised estimates on the same basis.
Historical data	Jobs are frequently "closed out" before final costs are in. As a result, accurate job histories do not exist.	Job records are complete so that accurate job histories exist. These serve as a resource for future bids.
Confidence	Management has little confidence in job cost reports. Little or no attempt to investigate variances.	Management uses job cost reports as a management tool. Job problems are identified as a result and job profits are enhanced.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
Costs to Complete:		
Coordination with accounts payable cutoff	Costs to complete are frequently determined before all accounts payable are recorded. Duplications and omissions of costs result.	Costs to complete are determined only after all accounts payable are in. Cutoff is well-controlled and precise.
Re-estimates	Re-estimates are made infrequently with the original estimate of total contract costs being used as the benchmark for most contracts. Re-estimates which are made are "ball-parked."	"Ball-park" re-estimates are made but complete re-estimates are made for larger jobs, using procedures similar to those used for original estimates.
Revisions in estimates of contract profits	Revisions are "lost" in the cumulative calculations of contract profits that replace earlier versions.	While cumulative calculations are also made, the effects of changes in estimates of contract profit are isolated and distinguished from profits representing true contract performance.
Equipment rates	Equipment rates are revised infrequently and there is no attempt to calculate and report a return on the equipment investment.	Equipment rates are based on fair market rentals, having the potential of maximizing job profits; and also permitting a calculation of the return on the equipment investment.
Equipment records	Equipment records are not maintained.	Equipment "histories" are maintained.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
Control Procedures:		
Contract documents	Maintained haphazardly; some files are not complete; others are highly disorganized and difficult to work with.	Files are maintained in good and complete order in fireproof cabinets.
Records at job site	Maintained haphazardly; some files are not complete; others are highly disorganized and difficult to work with.	Job correspondence files, submittals, job diaries, contract documents and drawings are maintained in good order.
Safeguarding assets	Safekeeping of small tools and equipment is lax; theft is commonplace.	Access to small tools and equipment is appropriately restricted to prevent most theft. Downtime is also reduced as a result.
Project manager reviews of job cost repairs	Not usually done; project managers have no confidence in these reports.	These reviews are considered an important control over the quality of the job cost reports.
Balancing of equipment register with general ledger control account	Not done. No equipment register maintained.	Balanced periodically as considered necessary.
Balancing of job cost ledger with general ledger control account	Balancing is very difficult due to the number of reconciling items. Sometimes, not done at all.	Balanced monthly.

Illustration 11-2 (Cont.)

Assessment of Control Risk

Elements of Internal Control Structure	Assessed Level of Control Risk: At or Near Maximum-Conditions Cited	Assessed Level of Control Risk: Moderate or Low-Conditions Cited
Control Procedures:		
Periodic inventories of small tools and equipment	Never done.	Done periodically.
Independent approvals of accounting distribution	Seldom done.	Done as a matter of policy.
Segregation of duties	Sometimes done, but usually by coincidence.	Done as practicable, as a matter of policy.
Computer input, program and general controls	Generally undisciplined and lax.	Controls are implemented, as practicable.

Note: The above data is for purposes of illustration only. It is not intended to be all-inclusive.

Substantive Tests

An audit is a cumulative process proceeding from a preliminary audit strategy that is subject to confirmation or rejection as evidential matter is accumulated. The auditor may find a need to depart from his or her preliminary audit strategy because it contemplated controls that were inoperative, were ineffective, or because the audit effort required to test such controls would be inefficient.

The nature, timing, and extent of the auditor's substantive audit procedures are functions of a competent assessed level of control risk, taking into account exceptions found in controls testing. The design of substantive tests is a function of the auditor's assessment of inherent risk and control risk and the audit strategy regarding detection risk. The design should consider the amount of evidence needed from substantive tests for each assertion, and a planned strategy for whether that evidence will be obtain from substantive analytical procedures, substantive tests of details, or a combination of both.

Judgments about the nature, timing, and extent of substantive tests are influenced by the:

(a) Assessment of the inherent risk of material misstatement.

(b) Materiality of transactions and balances.

(c) Assessed level of control risk.

(d) Amount, volume, and variability of transactions and balances.

(e) The effectiveness of other available audit procedures.

To illustrate, an auditor may assess control risk for an assertion as low. Based on this assessment and other factors, he or she may plan to perform substantive analytical procedures for that assertion that he or she judges to be very effective. Such procedures reduce audit risk to a level sufficiently low to eliminate the need to perform substantive tests of details for that assertion. Conversely, the auditor may choose to limit substantive tests to tests of details, eliminating the need to perform substantive analytical procedures for such an assertion. 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.

Job Site Visits. A very important substantive test in a construction contractor audit is visiting the job sites. In addition to aiding in obtaining an understanding of the client's internal control structure, job site visits also assist the auditor in performing substantive tests of the assertions related to jobs in progress.

The audit of estimated costs to complete has its foundation in conditions at the job site. For example, when jobs are bid, the contractor usually assumes smooth operating performance at the job site. The profitability of the contract depends on this assumption. However, conditions at the job site could be found to be anything but smooth, as evidenced by items such as the following:

(a) Work is being involuntarily accelerated.

(b) There is evidence of trade-stacking or trade crowding.

(c) There are labor problems.

(d) Due to materials shortages, workers are idle.

(e) Inefficient, inappropriate, or indiscriminate scheduling of jobs.

(f) Work is being performed out of sequence.

(g) There is friction and bickering between owner, contractor and subcontractors.

(h) Safety of human resources is in jeopardy due to unsafe conditions at the job site, including drug and alcohol problems.

(i) Safekeeping of inventories and materials is poor due to poor storage practices.

(j) Equipment usage is not controlled as evidenced by idle equipment at the job site.

An auditor's job site visit is designed to accomplish many objectives; however, the objective that overrides all others by far is the objective of determining that job site conditions are the same as those contemplated by the bid. If job site conditions are worse than contemplated by the bid, costs to complete can be expected to go up.

How to Select Jobs for Site Visits. The following factors influence the auditor's decision as to which job sites are selected for visits.

(a) Percent Complete — the lower the percentage complete, the greater the potential for misstatement of profit.

(b) Problems (i.e., loss jobs) as indicated by job status reports and large numbers of change orders.

(c) Jobs outside the contractor's range of expertise and experience (e.g., a road builder contracts to build a dam).

(d) Unusually large "bid spreads."

(e) Dispute situations that could develop into claims.

(f) Labor problems.

(g) Unusual items noted in analytical procedures, such as unusually high or low gross profit margins.

(h) Extent of subcontractor involvement.

(i) Past involvement with the project owner.

(j) Small bid margins.

If the objective of the job site visit is to obtain an understanding of the internal control structure, a single job site visit may be sufficient, assuming uniform policies and procedures are used throughout the contractor's organization. (In fact job site visits are not always required assuming alternative procedures can be satisfactorily used.)

Additional job site visits are generally made when contracts-in-progress are material at the balance-sheet date. Such visits provide substantive evidence about the existence, completeness, and valuation assertions. Substantive evidence at a job site visit includes observation of the physical status of the project, observation of personnel employed at the job site, and the observation of equipment deployed at the job site. Substantive testing can be performed by comparing internally generated records to what is observed at the site.

Substantive Analytical Procedures

SAS 56, *Analytical Procedures*, paragraph 2, states:

> Analytical procedures... consist of evaluations of financial information made by a study of plausible relationships among both financial and nonfinancial data... A basic premise underlying the application of analytical procedures is that plausible relationships among data may reasonably be expected to exist and continue in the absence of known conditions to the contrary.

Substantive analytical procedures may include the following analyses:

(a) Analysis of gross profit margins on contracts, investigating and obtaining explanations for contracts with unusually high or low profit margins.

(b) Analysis of fluctuations in gross profit margins of contracts taken individually, comparing the rate of gross profit reported in the current year with the rate of gross profit reported in prior years.

(c) A comparison of the rate of gross profit reported for contracts in progress as a group with the rate of gross profit realized on completed contracts.

(d) Review of job cost records, comparing actual costs with the budgeted amounts on which the bid was based.

(e) Review of job cost records, comparing actual costs with the <u>revised</u> cost estimates.

(f) Job progress toward completion analysis, comparing the daily average value of work put in place with the daily average value of work that would have to be put in place for the duration of the contract, if it is to be completed on schedule.

The more predictable the relationships being subjected to substantive analytical procedures, the greater the audit value derived from the procedure. For example, a job progress toward completion analysis, comparing the daily average value of work that would have to be put in place for the duration of the contract is of limited effectiveness. The reason is that increases in the value of a contract do not occur uniformly over the construction period. Nevertheless, the procedure is of value in identifying contracts substantially behind schedule.

Expectations developed at a detailed level generally have a greater chance of detecting misstatement than do broad comparisons. Disaggregation helps reduce the risk of material misstatement.

Substantive Tests of Details

Substantive tests of details for the component, *costs to complete*, may involve the following records, documents, and procedures:

(a) Contracts and related documents.

(b) Change orders.

(c) Job estimates and bid documents.

(d) Job site visits.

(e) Disputed items.

(f) Accounts payable records.

(g) Job cost records.

(h) General conditions and job overhead allocations.

(i) Post-balance sheet records of contract costs.

(j) Client representation letters covering contract related items.

(k) Attorneys' letters insofar as they relate to contract-related litigation, claims and assessments.

The Client Representation Letter

Some of the matters that the auditor should consider obtaining written representations about in the audit of a contractor include:

(a) The method of income recognition used.

(b) The provisions for losses on contracts.

(c) Unapproved change orders, claims, and contract postponements or cancellations.

(d) Backlog information if presented in the financial statements.

(e) Joint venture participants and other related party transactions.

(f) Estimated costs to complete.

(g) Collectibility of accounts receivable from disputed contracts.

Chapter 8 of this Manual illustrates a sample client representation letter for a construction contractor.

Going Concern Considerations Unique to Contractors

During the course of the audit, the auditor may have become aware of conditions or events that raise doubts about the entity's ability to continue as a gong concern. Such conditions or events might include:

- Jobs in progress have been front-end loaded with little or no liquid cash available to finish the jobs.
- The contractor is under obligation to complete construction of a facility without possessing the ability to do so, due to, for example, the absence of needed technology. Contract default can carry devastating consequences.
- The contractor's bonding capacity has eroded.
- The contractor has no choice but to continue working even though he or she has been substantially damaged, and the contractor lacks the financial capacity to finance the damages involved.
- Successful recovery of claims cannot be predicted with certainty.
- Large "bid spreads" which indicate that the contractor may have made significant errors in estimates of contract costs resulting in the expectation of significant losses on contracts in progress.
- Job site catastrophes may have occurred either during the year under audit, or subsequent to year end.
- A recurring pattern of bringing in jobs at a loss.
- Progress payments are encumbered with liens filed by subcontractors and suppliers.
- Significant backlog, which may lead to the contractor's inability to obtain bonding for new work.
- Diminishing backlog, which may indicate an involuntary liquidation or severe pricing pressures for new work, bringing into question the profitability of new work.
- Significant increase in backlog (whether obtained through thin margins or not) resulting in program size vastly out of proportion with the contractor's working capital, project management capabilities, and general ability to perform.

EXERCISES

1. How does an auditor document his or her assessed level of control risk in the audit workpapers?

2. List some of the procedures the auditor would perform on a typical job site visit.

3. During the course of the audit, the auditor discovered that costs have been "front-end loaded" on several jobs, and the contractors's cash flow may be inadequate to bring the jobs to completion.

   (a) What additional audit evidence would the auditor consider to determine whether he or she has substantial doubt about the entity's ability to continue as a going concern?

   (b) What are the reporting and disclosure ramifications?

SUGGESTED SOLUTIONS TO EXERCISES

1. How does an auditor document his or her assessed level of control risk in the audit workpapers?

   In obtaining an understanding of internal control structure policies and procedures, the auditor is required to document the understanding, (i.e., describe or illustrate the controls) but is not required to document the procedures performed to obtain such understanding.

   When an auditor assesses the level of control risk, his or her documentation will depend on whether he or she assesses control risk at the maximum or at some lower level. If control risk is assessed at the maximum, the auditor need only document this fact. However, if control risk is assessed at a level below the maximum, the auditor should document (a) the basis for his or her assessment and (b) his or her tests of controls and their result.

   When an auditor assesses control risk below the maximum, the auditor does not need to quantify the level at which control risk is assessed.

2. List some of the procedures the auditor would perform on a typical job site visit.

   (a) Tour the facility, noting:

   (i) A rough idea of percentage of completion.

   (ii) Apparent working relationships among crafts.

   (iii) Evidence of trade-stacking or trade crowding.

   (iv) Evidence of involuntary acceleration.

   (v) Evidence of labor problems.

   (vi) Evidence of problems with flow of materials.

   (vii) Existence of substantial stored materials.

   (viii) Idle workers due to materials shortages.

   (ix) Inappropriate scheduling methods.

   (x) Progress seriously off schedule.

   (xi) Work is being done out of sequence.

   (xii) Evidence of friction and bickering between owner, contractor and subcontractors.

   (xiii) Hazardous conditions, including presence of alcohol and drugs on the job site.

   (xiv) Poor storage practices and safekeeping of inventories and materials.

   (xv) Poor equipment management as evidenced by uncontrolled usage or idle equipment.

   (b) Review scheduling methods with project manager.

SUGGESTED SOLUTIONS TO EXERCISES, CONTINUED

(c) Review job site documentation, including:

(i) Correspondence files.

(ii) Requests for information.

(iii) Change orders.

(iv) Submittals.

(v) Job diary.

(vi) Documentation supporting claims pending for or against the contractor.

(d) Review the accounting records and documents maintained at the job site, including payroll time cards, receiving reports, petty cash records (on hand or in bank) and suppliers' invoices held pending correction.

(e) Discuss job status with project manager, superintendents, etc.

3. During the course of the audit, the auditor discovered that costs have been "front-end loaded" on several jobs, and the contractor's cash flow may be inadequate to bring the jobs to completion.

(a) What additional audit evidence would the auditor consider to determine whether he or she has substantial doubt about the entity's ability to continue as a going concern?

Since such conditions could raise substantial doubt about the entity's ability to continue as a going concern, the auditor would first inquire about management's plan to mitigate this condition. In this situation, the auditor would look for the contractor's ability to raise working capital, through obtaining bank loans or restructuring debt, disposal of equipment or other assets, reduce or delay expenditures, and additional partner/owner capital contributions.

(b) What are the reporting and disclosure ramifications?

If management's plans alleviate the auditor's concern, the auditor should consider disclosing the condition and the mitigating factors, including management's plans. If the auditor concludes that substantial doubt exists, he or she would add an explanatory paragraph to the auditor's report that reflects his or her doubt, and that refers to the financial statement disclosure describing the condition. In rare situations, the auditor may disclaim an opinion.

COURSE APPENDIXES

Appendix 11D

AU Section 319

Consideration of the Internal Control Structure on a Financial Statement Audit

AU Section 319

Consideration of the Internal Control Structure in a Financial Statement Audit

(Supersedes section 320) *

Source: SAS No. 55.

Effective for audits of financial statements for periods beginning on or after January 1, 1990, unless otherwise indicated.

.01 This section provides guidance on the independent auditor's consideration of an entity's internal control structure in an audit of financial statements in accordance with generally accepted auditing standards.[1] It describes the elements of an internal control structure and explains how an auditor should consider the internal control structure in planning and performing an audit.

Summary

.02 An entity's internal control structure, for purposes of this section, consists of three elements: the control environment, the accounting system, and control procedures. In all audits, the auditor should obtain a sufficient understanding of each of the three elements to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning 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 structure) because he believes policies and procedures 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 policy or procedure that supports a lower assessed level of control risk. Such evidential matter may be obtained from tests of controls planned and 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 risk for certain assertions. In such cases, the auditor considers whether evidential matter sufficient to support a further reduction is likely to be

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* This section also supersedes Auditing Interpretations of section 320, *The Auditor's Study and Evaluation of Internal Control* (section 9320.01—.06).

[1] This section revises the second standard of fieldwork of the ten generally accepted auditing standards as follows:

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

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 the internal control structure and the assessed level of control risk in determining the nature, timing, and extent of substantive tests for financial statement assertions.

Elements of an Internal Control Structure

.06 An entity's internal control structure consists of the policies and procedures established to provide reasonable assurance that specific entity objectives will be achieved. Although the internal control structure may include a wide variety of objectives and related policies and procedures, only some of these may be relevant to an audit of the entity's financial statements. Generally, the policies and procedures that are relevant to an audit pertain to the entity's ability to record, process, summarize, and report financial data consistent with the assertions embodied in the financial statements.[2] Other policies and procedures, however, may be relevant if they pertain to data the auditor uses to apply auditing procedures. For example, policies and procedures pertaining to nonfinancial data that the auditor uses in analytical procedures, such as production statistics, may be relevant in an audit.

.07 An entity generally has internal control structure policies and procedures that are not relevant to an audit and therefore need not be considered. For example, policies and procedures concerning the effectiveness, economy, 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, do not ordinarily relate to a financial statement audit.

.08 For purposes of an audit of financial statements, an entity's internal control structure consists of the three following elements:

- The control environment
- The accounting system
- Control procedures

Dividing the internal control structure into these three elements facilitates discussion of its nature and how the auditor considers it in an audit. The auditor's primary consideration, however, is whether an internal control structure policy or procedure affects financial statement assertions rather than its classification into any particular category.

Control Environment

.09 The control environment represents the collective effect of various factors on establishing, enhancing, or mitigating the effectiveness of specific policies and procedures. Such factors include the following:

- Management's philosophy and operating style
- The entity's organizational structure
- The functioning of the board of directors and its committees, particularly the audit committee
- Methods of assigning authority and responsibility

[2] The terms *financial statement assertions* and *assertions* are used throughout this section to refer to the five categories of management's assertions that are embodied in the account balance, transaction class, and disclosure components of financial statements as discussed in section 326, *Evidential Matter*, paragraphs .03—.08.

- Management's control methods for monitoring and following up on performance, including internal auditing
- Personnel policies and practices
- Various external influences that affect an entity's operations and practices, such as examinations by bank regulatory agencies

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 emphasis in the entity. (The control environment factors are discussed in greater detail in paragraph .66.)

Accounting System

.10 The accounting system consists of the methods and records established to identify, assemble, analyze, classify, record, and report an entity's transactions and to maintain accountability for the related assets and liabilities. An effective accounting system gives appropriate consideration to establishing methods and records that will—

- 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.

Control Procedures

.11 Control procedures are those policies and procedures in addition to the control environment and accounting system that management has established to provide reasonable assurance that specific entity objectives will be achieved. Control procedures have various objectives and are applied at various organizational and data processing levels. They may also be integrated into specific components of the control environment and the accounting system. Generally, they may be categorized as procedures that pertain to—

- Proper authorization of transactions and activities.
- Segregation of duties that 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 duties—assigning different people the responsibilities of authorizing transactions, recording transactions, and maintaining custody of assets.
- Design and use of adequate documents and records to help ensure the proper recording of transactions and events, such as monitoring the use of prenumbered shipping documents.
- Adequate safeguards over access to and use of assets and records, such as secured facilities and authorization for access to computer programs and data files.
- Independent checks on performance and proper valuation of recorded amounts, such as clerical checks, reconciliations, comparison of assets with recorded accountability, computer-programmed controls, management review of reports that summarize the detail

of account balances (for example, an aged trial balance of accounts receivable), and user review of computer-generated reports.

General Considerations

.12 The applicability and importance of specific control environment factors, accounting system methods and records, and control procedures that an entity establishes should be considered in the context of—

- The entity's size.
- Its organization and ownership characteristics.
- The nature of its business.
- The diversity and complexity of its operations.
- Its methods of processing data.
- Its applicable legal and regulatory requirements.

For example, a formal written code of conduct or an organizational structure that provides for formal delegation of authority may be significant to the control environment of a large entity. However, a small entity with effective owner-manager involvement may not need a formal code or organizational structure. Similarly, a small entity with effective owner-manager involvement may not need extensive accounting procedures, sophisticated accounting records, or formal control procedures, such as a formal credit policy, information security policy, or competitive bidding procedures.

.13 Establishing and maintaining an internal control structure is an important management responsibility. To provide reasonable assurance that an entity's objectives will be achieved, the internal control structure should be under ongoing supervision by management to determine that it is operating as intended and that it is modified as appropriate for changes in conditions.

.14 The concept of reasonable assurance recognizes that the cost of an entity's internal control structure 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 an internal control structure, 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.

.15 The potential effectiveness of an entity's internal control structure is subject to inherent limitations. Mistakes in the application of policies and procedures may arise from such causes as misunderstanding of instructions, mistakes in judgment, and personal carelessness, distraction, or fatigue. Furthermore, the policies and procedures that require segregation of duties can be circumvented by collusion among persons both within and outside the entity and by management override of certain policies or procedures.

Consideration of the Internal Control Structure in Planning an Audit

.16 The auditor should obtain a sufficient understanding of each of the three elements of the entity's internal control structure to plan the audit of the entity's financial statements. The understanding should include knowledge about the design of relevant policies, procedures, and records and whether they have been placed in operation by the entity. In planning the audit, such knowledge should be used to—

- Identify types of potential misstatements.
- Consider factors that affect the risk of material misstatements.

- Design substantive tests.

.17 Whether an internal control structure policy or procedure has been *placed in operation* is different from its *operating effectiveness*. In obtaining knowledge about whether policies, procedures, or records 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 policy, procedure, or record was applied, the consistency with which it was applied, and by whom. This section does not require the auditor to obtain knowledge about operating effectiveness as part of the understanding of the internal control structure.

.18 The auditor's understanding of the internal control structure 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 misrepresentations 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 the Internal Control Structure

.19 In making a judgment about the understanding of the internal control structure necessary to plan the audit, the auditor considers the knowledge obtained from other sources about the types of misstatements 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 assessments of inherent risk, his judgments about materiality, and the complexity and sophistication of the entity's operations and systems, including whether the method of controlling data 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 structure elements to obtain the understanding of them that is necessary to design effective substantive tests. 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 procedures concerning the completeness and classification of loans.

Understanding of Control Environment

.20 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 auditor should concentrate on the substance of management's policies, procedures, and related actions rather than their form because management may establish appropriate policies and procedures but not act on them. For example, a budgetary reporting system may provide adequate reports, but the reports may not be analyzed and acted on. Similarly, management may establish a formal code of conduct but act in a manner that condones violations of that code.

Understanding of Accounting System

.21 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.
- How those transactions are initiated.
- The accounting records, supporting documents, machine-readable 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 how the computer is used to process data.
- The financial reporting process used to prepare the entity's financial statements, including significant accounting estimates and disclosures.

Understanding of Control Procedures

.22 Because some control procedures are integrated in specific components of the control environment and accounting system, as the auditor obtains an understanding of the control environment and accounting system, he is also likely to obtain knowledge about some control procedures. 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 procedures obtained from the understanding of the control environment and accounting system in determining whether it is necessary to devote additional attention to obtaining an understanding of control procedures to plan the audit. Ordinarily, audit planning does not require an understanding of the control procedures related to each account balance, transaction class, and disclosure component in the financial statements or to every assertion relevant to those components.

Procedures to Obtain Understanding

.23 In obtaining an understanding of the internal control structure policies and procedures that are relevant to audit planning, the auditor should perform procedures to provide sufficient knowledge of the design of the relevant policies, procedures, and records pertaining to each of the three internal control structure elements 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 policy or procedure, and the nature of the entity's documentation of specific policies and procedures.

.24 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 procedures 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 procedure design and may inspect exception reports generated as a result of such control procedures to determine that they have been placed in operation.

.25 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 the internal control structure.

Documentation of Understanding

.26 The auditor should document the understanding of the entity's internal control structure elements 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 structure. For example, documentation of the understanding of the internal control structure 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 the internal control structure and the more extensive the procedures performed, the more extensive the auditor's documentation should be.

Consideration of the Internal Control Structure in Assessing Control Risk

.27 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.

.28 The risk of material misstatement [3] 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 internal control structure policies or procedures. 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

[3] 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.

structure policies or procedures. Detection risk is the risk that the auditor will not detect a material misstatement that exists in an assertion.

.29 Assessing control risk is the process of evaluating the effectiveness of an entity's internal control structure policies and procedures 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 the internal control structure, the auditor may assess control risk at the maximum level for some or all assertions because he believes policies and procedures are unlikely to pertain to an assertion, are unlikely to be effective, or because evaluating their effectiveness would be inefficient.[4]

.30 Assessing control risk at below the maximum level involves—

- Identifying specific internal control structure policies and procedures 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 policies and procedures.

.31 In identifying internal control structure policies and procedures relevant to specific financial statement assertions, the auditor should consider that the policies and procedures 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 structure element involved. The control environment and accounting system often have a pervasive effect on a number of account balances or transaction classes and, therefore, can often affect many assertions. 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.

.32 Conversely, some control procedures often have a specific effect on an individual assertion embodied in a particular account balance or transaction class. For example, the control procedures 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.

.33 Internal control structure policies and procedures can be either directly or indirectly related to an assertion. The more indirect the relationship, the less effective that policy or procedure 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 policies and procedures more directly related to that assertion, such as matching shipping documents with billing documents.

.34 Procedures directed toward either the effectiveness of the design or operation of an internal control structure policy or procedure are referred to as

[4] 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 structure.

tests of controls. Tests of controls directed toward the effectiveness of the design of an internal control structure policy or procedure are concerned with whether that policy or procedure 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 internal control structure policies and procedures. For entities with a complex internal control structure, the auditor should consider that the use of flowcharts, questionnaires, or decision tables might facilitate the application of tests of design.

.35 Tests of controls directed toward the operating effectiveness of an internal control structure policy or procedure 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 and reports indicating performance of the policy or procedure, observation of the application of the policy or procedure, and reperformance of the application of the policy or procedure 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 an internal control structure policy or procedure.

.36 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 .46 through .60. Generally, however, the lower the assessed level of control risk, the greater the assurance the evidential matter must provide that the internal control structure policies and procedures relevant to an assertion are designed and operating effectively.

.37 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.

.38 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 directly 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

.39 In addition to the documentation of the understanding of the internal control structure discussed in paragraph .26, the auditor should document the basis for his 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 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 conclusion that the effectiveness of the design and operation of internal control structure policies and procedures 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 structure, and the nature of the entity's documentation of its internal control structure.

Relationship of Understanding to Assessing Control Risk

.40 Although understanding the internal control structure 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 the internal control structure (discussed in paragraphs .23 through .25) is to provide the auditor with knowledge necessary for audit planning. The objective of tests of controls (discussed in paragraphs .34 through .35) 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.

.41 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 the internal control structure. 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 policies and procedures 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.

.42 When the auditor concludes that procedures performed to obtain the understanding of the internal control structure also provide evidential matter for assessing control risk, he should consider the guidance in paragraphs .46 through .60 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 of 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 policy or procedure relevant to an assertion.

Further Reduction in the Assessed Level of Control Risk

.43 After obtaining the understanding of the internal control structure 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 structure, as well as pertinent information from other sources, help the auditor to evaluate those two factors.

.44 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 the internal control structure in planning the substantive tests for those assertions.

.45 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

.46 When the auditor assesses control risk at below the maximum level, he should obtain sufficient evidential matter to support that assessed level. The evidential matter[5] 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 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.

.47 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 policy or procedure 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

.48 The nature of the particular policies and procedures that pertain to an assertion influences the type of evidential matter that is available to

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[5] See also section 326, *Evidential Matter*, for guidance on evidential matter. [Footnote added, May 1994, to cross-reference guidance on evidential matter to section 326.]

evaluate the effectiveness of the design or operation of those policies and procedures. For some policies and procedures, 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.

.49 For other policies and procedures, 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 procedures, such as segregation of duties or some control procedures 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 policies and procedures.

Source of Evidential Matter

.50 Generally, evidential matter about the effectiveness of the design and operation of policies and procedures 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 procedure generally provides more assurance than making inquiries about the individual. The auditor should consider, however, that the observed application of a policy or procedure might not be performed in the same manner when the auditor is not present.

.51 Inquiry alone generally will not provide sufficient evidential matter to support a conclusion about the effectiveness of design or operation of a specific control procedure. When the auditor determines that a specific control procedure may have a significant effect in reducing control risk to a low level for a specific assertion, he 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 procedure.

Timeliness of Evidential Matter

.52 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 internal control structure policies and procedures 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 procedure 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 procedures pertaining to the modification and the use of that computer program during the audit period to obtain evidential matter about whether the programmed control procedure operated consistently during the audit period.

.53 Evidential matter about the effective design or operation of internal control structure policies and procedures 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 internal control structure policies and procedures that were evaluated during the prior audits, the degree to which the effective design and operation of those policies and procedures 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.

.54 When considering evidential matter obtained from prior audits, the auditor should obtain evidential matter in the current period about whether changes have occurred in the internal control structure, 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.

.55 When the auditor obtains evidential matter about the design or operation of internal control structure policies and procedures during an interim period, he 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 internal control structure policies and procedures that were evaluated during the interim period, the degree to which the effective design and operation of those policies and procedures 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 the internal control structure, including its policies, procedures, and personnel, that occur subsequent to the interim period.

Interrelationship of Evidential Matter

.56 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 an internal control structure policy or procedure. To obtain sufficient evidential matter in such circumstances, the auditor may perform other tests of controls pertaining to that policy or procedure. 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.

.57 In addition, when evaluating the degree of assurance provided by evidential matter, the auditor should consider the interrelationship of an entity's control environment, accounting system, and control procedures. Although an individual internal control structure element 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 element in relation to the evidential matter about the other elements in assessing control risk for a specific assertion.

.58 Generally, when various types of evidential matter support the same conclusion about the design or operation of an internal control structure policy or procedure, the degree of assurance provided increases. Conversely, if various types of evidential matter lead to different conclusions about the design or operation of an internal control structure policy or procedure, 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 procedures, the auditor obtains evidential matter that such procedures are ineffective, he may reevaluate his conclusion about the control environment and, among other things, decide to perform auditing procedures at additional locations.

.59 Similarly, evidential matter indicating that the control environment is ineffective may adversely affect an otherwise effective accounting system or control procedure 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.

.60 An audit of financial statements is a cumulative process; as the auditor assesses control risk, the information obtained may cause him 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 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 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

.61 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.

.62 After considering the level to which he 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.

.63 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.

.64 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 an internal control structure policy or procedure 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

.65 This section is effective for audits of financial statements for periods beginning on or after January 1, 1990. Early application of the provisions of this section is permissible.

Appendix A

.66 Control Environment Factors

1. This appendix discusses the control environment factors identified in paragraph .09.

Management Philosophy and Operating Style

2. Management 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; and management's 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.

Organizational Structure

3. An entity's organizational structure provides the overall framework for planning, directing, and controlling operations. An organizational structure includes consideration of the form and nature of an entity's organizational units, including the data processing organization, and related management functions and reporting relationships. In addition, the organizational structure should assign authority and responsibility within the entity in an appropriate manner.

Audit Committee

4. An effective audit committee takes an active role in overseeing an entity's accounting and financial reporting policies and practices. The committee should assist the board of directors in fulfilling its fiduciary and accountability responsibilities and should help maintain a direct line of communication between the board and the entity's external and internal auditors.

Methods of Assigning Authority and Responsibility

5. These methods affect the understanding of reporting relationships and responsibilities established within the entity. Methods of assigning authority and responsibility include consideration of—

- Entity policy regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct.
- Assignment of responsibility and delegation of authority to deal with such matters as organizational goals and objectives, operating functions, and regulatory requirements.
- Employee job descriptions delineating specific duties, reporting relationships, and constraints.
- Computer systems documentation indicating the procedures for authorizing transactions and approving systems changes.

Management Control Methods

6. These methods affect management's direct control over the exercise of authority delegated to others and its ability to effectively supervise overall company activities. Management control methods include consideration of—

- Establishing planning and reporting systems that set forth management's plans and the results of actual performance. Such systems may include business planning; budgeting, forecasting, and profit planning; and responsibility accounting.

- Establishing methods that identify the status of actual performance and exceptions from planned performance, as well as communicating them to the appropriate levels of management.
- Using such methods at appropriate management levels to investigate variances from expectations and to take appropriate and timely corrective action.
- Establishing and monitoring policies for developing and modifying accounting systems and control procedures, including the development, modification, and use of any related computer programs and data files.

Internal Audit Function

7. The internal audit function is established within an entity to examine and evaluate the adequacy and effectiveness of other internal control structure policies and procedures. Establishing an effective internal audit function includes consideration of its authority and reporting relationships, the qualifications of its staff, and its resources.*

Personnel Policies and Practices

8. These policies and practices affect an entity's ability to employ sufficient competent personnel to accomplish its goals and objectives. Personnel policies and practices include consideration of an entity's policies and procedures for hiring, training, evaluating, promoting, and compensating employees, and giving them the resources necessary to discharge their assigned responsibilities.

External Influences

9. These are influences established and 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 bodies, such as examinations by bank regulatory agencies. They also include review and follow-up by parties outside the entity concerning entity actions. External influences are ordinarily outside an entity's authority. Such influences, however, may heighten management's consciousness of and attitude towards the conduct and reporting of an entity's operations and may also prompt management to establish specific internal control structure policies or procedures.

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* Section 322, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements*, provides guidance about factors that affect the auditor's consideration of the work of internal auditors in an audit.

Appendix B

.67 Glossary of Selected Terms and Concepts

Accounting system The methods and records established to identify, assemble, analyze, classify, record, and report an entity's transactions and to maintain accountability for the related assets and liabilities.

Assertions Management representations that are embodied in the account balance, transaction class, and disclosure components of financial statements. They include (1) existence or 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 structure policies and procedures in preventing or detecting misstatements in financial statement assertions.

Control environment The collective effect of various factors on establishing, enhancing, or mitigating the effectiveness of specific policies and procedures. Such factors include (1) management philosophy and operating style, (2) organizational structure, (3) the function of the board of directors and its committees, (4) methods of assigning authority and responsibility, (5) management control methods, (6) the internal audit function, (7) personnel policies and practices, and (8) external influences concerning the entity.

Control procedures The policies and procedures in addition to the control environment and accounting system that management has established to provide reasonable assurance that specific entity objectives will be achieved.

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 structure policies or procedures.

Detection risk The risk that the auditor will not detect a material misstatement that exists in an assertion.

Inherent risk The susceptibility of an assertion to a material misstatement assuming there are no related internal control structure policies or procedures.

Internal control structure The policies and procedures established to provide reasonable assurance that specific entity objectives will be achieved.

Internal control structure policies and procedures relevant to an audit The policies and procedures in an entity's internal control structure that pertain to the entity's ability to record, process, summarize, and report financial data consistent with management's assertions embodied in the financial statements or that pertain to data the auditor uses to apply auditing procedures to financial statement assertions.

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 structure.

Operating effectiveness How an internal control structure policy or procedure was applied, the consistency with which it was applied, and by whom.

Placed in operation An entity is using an internal control structure policy or procedure.

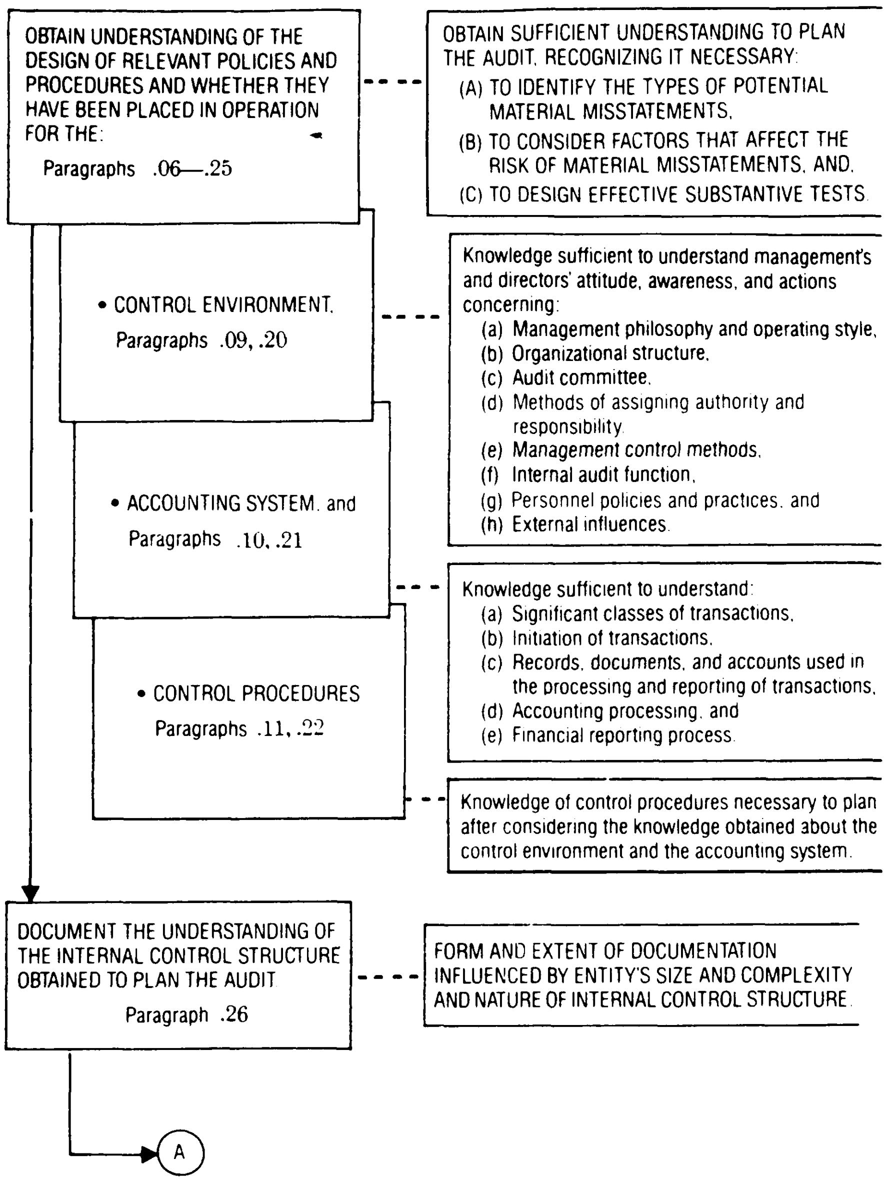
Substantive tests Tests of details and analytical procedures performed to detect material misstatements in the account balance, transaction class, and disclosure components of financial statements.

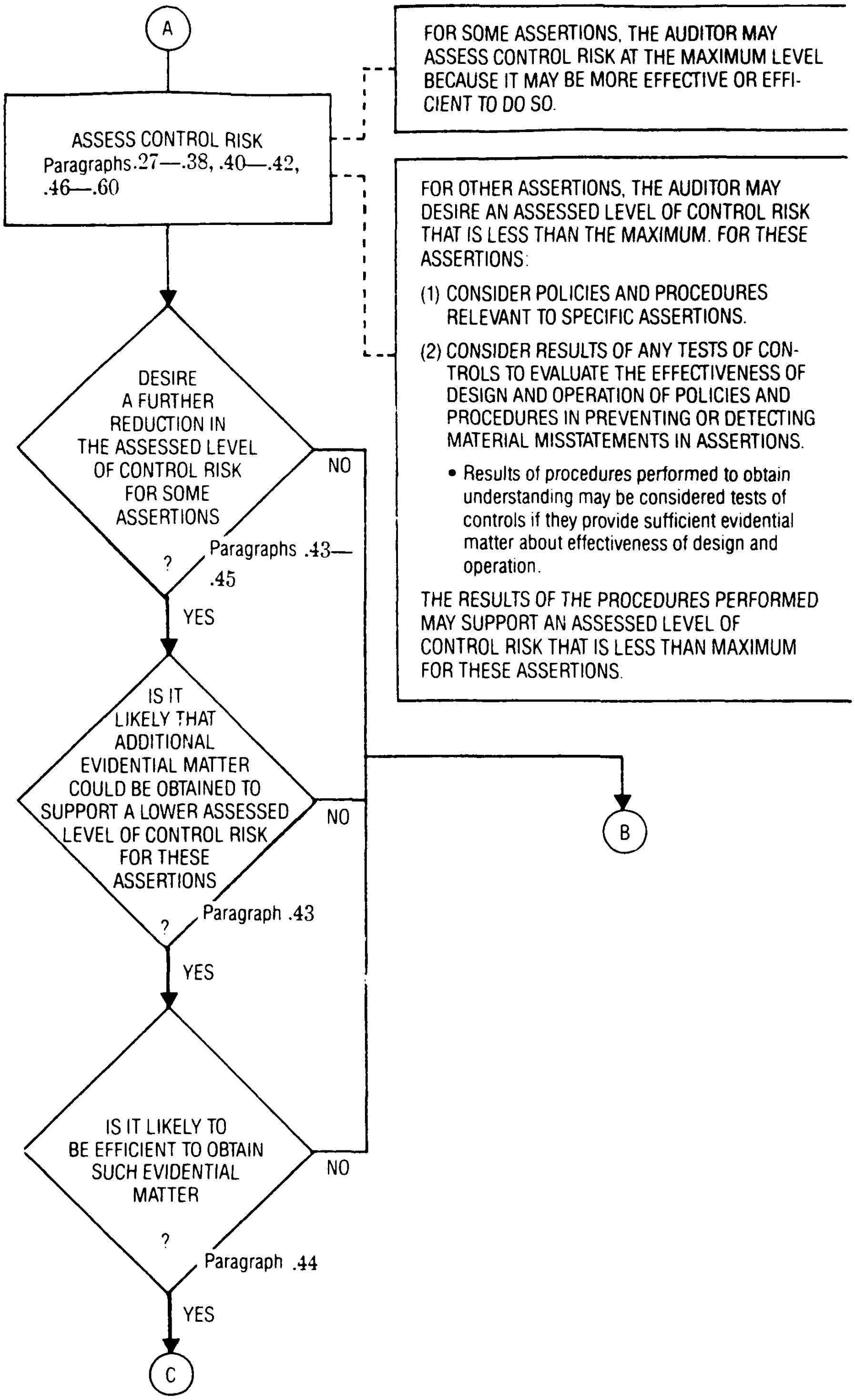
Tests of controls Tests directed toward the design or operation of an internal control structure policy or procedure to assess its effectiveness in preventing or detecting material misstatements in a financial statement assertion.

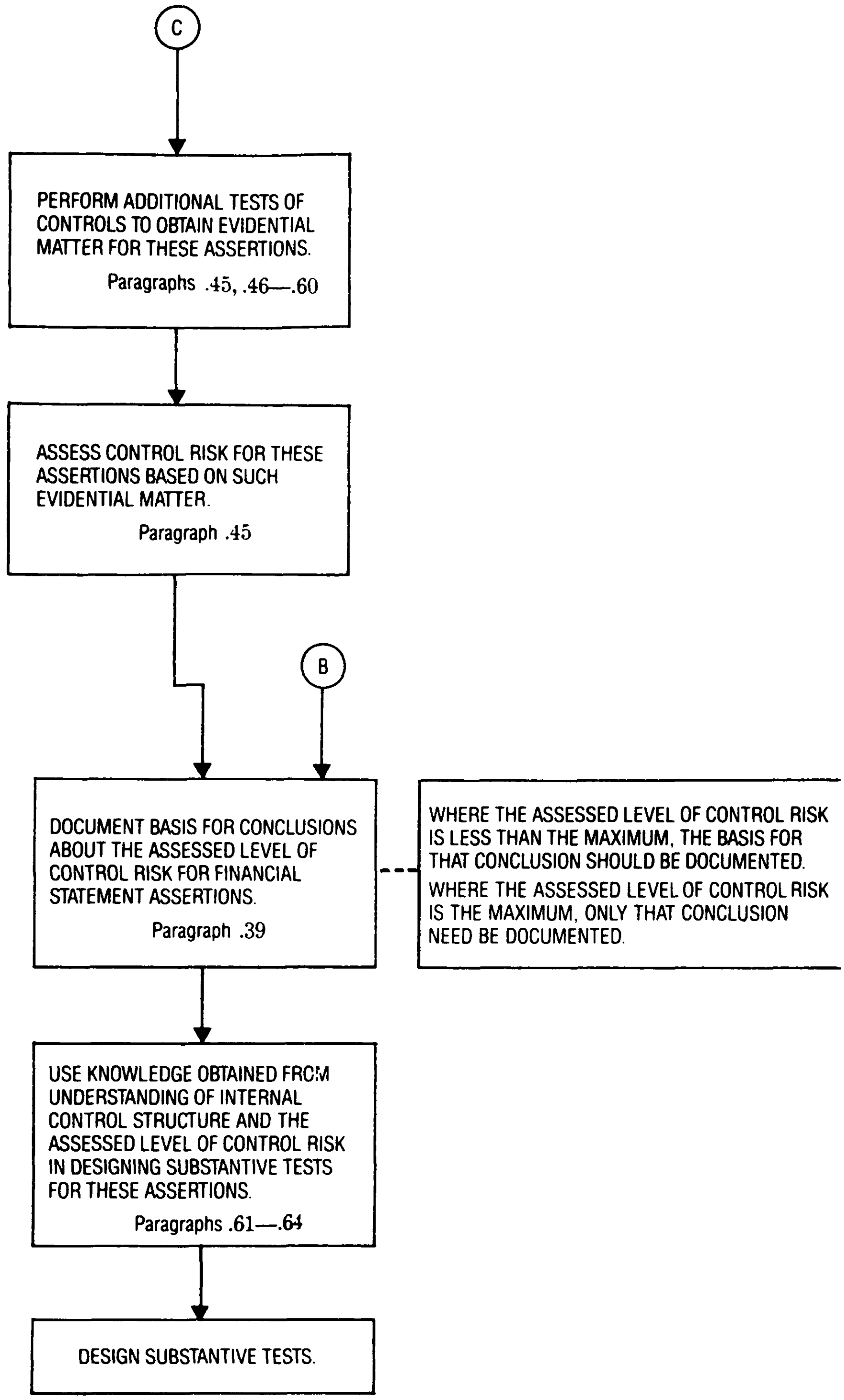
Understanding of the internal control structure The knowledge of the control environment, accounting system, and control procedures that the auditor believes is necessary to plan the audit.

Appendix C

.68 Flow Chart—Consideration of the Internal Control Structure in a Financial Statement Audit




A
ASSESS CONTROL RISK
Paragraphs .27—.38, .40—.42, .46—.60
FOR SOME ASSERTIONS, THE AUDITOR MAY ASSESS CONTROL RISK AT THE MAXIMUM LEVEL BECAUSE IT MAY BE MORE EFFECTIVE OR EFFICIENT TO DO SO.
FOR OTHER ASSERTIONS, THE AUDITOR MAY DESIRE AN ASSESSED LEVEL OF CONTROL RISK THAT IS LESS THAN THE MAXIMUM. FOR THESE ASSERTIONS:
(1) CONSIDER POLICIES AND PROCEDURES RELEVANT TO SPECIFIC ASSERTIONS.
(2) CONSIDER RESULTS OF ANY TESTS OF CONTROLS TO EVALUATE THE EFFECTIVENESS OF DESIGN AND OPERATION OF POLICIES AND PROCEDURES IN PREVENTING OR DETECTING MATERIAL MISSTATEMENTS IN ASSERTIONS.
• Results of procedures performed to obtain understanding may be considered tests of controls if they provide sufficient evidential matter about effectiveness of design and operation.
THE RESULTS OF THE PROCEDURES PERFORMED MAY SUPPORT AN ASSESSED LEVEL OF CONTROL RISK THAT IS LESS THAN MAXIMUM FOR THESE ASSERTIONS.
DESIRE A FURTHER REDUCTION IN THE ASSESSED LEVEL OF CONTROL RISK FOR SOME ASSERTIONS ?
Paragraphs .43—.45
NO
YES
IS IT LIKELY THAT ADDITIONAL EVIDENTIAL MATTER COULD BE OBTAINED TO SUPPORT A LOWER ASSESSED LEVEL OF CONTROL RISK FOR THESE ASSERTIONS ?
Paragraph .43
NO
B
YES
IS IT LIKELY TO BE EFFICIENT TO OBTAIN SUCH EVIDENTIAL MATTER ?
Paragraph .44
NO
YES
C


C
PERFORM ADDITIONAL TESTS OF CONTROLS TO OBTAIN EVIDENTIAL MATTER FOR THESE ASSERTIONS.
Paragraphs .45, .46—.60
ASSESS CONTROL RISK FOR THESE ASSERTIONS BASED ON SUCH EVIDENTIAL MATTER.
Paragraph .45
B
DOCUMENT BASIS FOR CONCLUSIONS ABOUT THE ASSESSED LEVEL OF CONTROL RISK FOR FINANCIAL STATEMENT ASSERTIONS.
Paragraph .39
WHERE THE ASSESSED LEVEL OF CONTROL RISK IS LESS THAN THE MAXIMUM, THE BASIS FOR THAT CONCLUSION SHOULD BE DOCUMENTED.
WHERE THE ASSESSED LEVEL OF CONTROL RISK IS THE MAXIMUM, ONLY THAT CONCLUSION NEED BE DOCUMENTED.
USE KNOWLEDGE OBTAINED FROM UNDERSTANDING OF INTERNAL CONTROL STRUCTURE AND THE ASSESSED LEVEL OF CONTROL RISK IN DESIGNING SUBSTANTIVE TESTS FOR THESE ASSERTIONS.
Paragraphs .61—.64
DESIGN SUBSTANTIVE TESTS.

Appendix D

.69 Other Selected Management Control Objectives

1. The concepts and terminology introduced in this section clarify and update former SAS No. 1, section 320, *The Auditor's Study and Evaluation of Internal Control*, by incorporating the concepts concerning audit evidence and audit risk that have evolved in practice and that have been established by Statements on Auditing Standards issued subsequent to that section. This appendix discusses some of the basic concepts in SAS No. 1, section 320, that are implicit in an internal control structure but that are not explicitly discussed in this section. Although these concepts have general application, the organizational and procedural means for applying them may differ considerably from case to case because of the variety of circumstances involved.

Management Objectives

2. Establishing and maintaining an internal control structure is an important management responsibility. In establishing specific internal control structure policies and procedures concerning an entity's ability to record, process, summarize, and report financial data that is consistent with management's assertions embodied in the financial statements, some of the specific objectives management may wish to consider include the following:

- Transactions are executed in accordance with management's general or specific authorization.
- Transactions are recorded as necessary (1) to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements and (2) to maintain accountability for assets.
- Access to assets is permitted only in accordance with management's authorization.
- The recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

Access to Assets

3. The objectives of safeguarding assets requires that access to assets be limited to authorized personnel. In this context, access to assets includes both direct physical access and indirect access through the preparation or processing of documents that authorize the use or disposition of assets. Access to assets is required in the normal operations of a business and, therefore, limiting access to authorized personnel is the maximum feasible constraint. The number and competence of personnel to whom access is authorized should be influenced by the nature of the assets and the related susceptibility to loss through errors and irregularities. Limitation of direct access to assets requires appropriate physical segregation and protective equipment or devices.

Comparison of Recorded Accountability With Assets

4. The purpose of comparing recorded accountability with assets is to determine whether the actual assets agree with the recorded accountability. Typical examples of this comparison include cash and securities counts, bank reconciliations, and physical inventories.

5. If the comparison reveals that the assets do not agree with the recorded accountability, it provides evidence of unrecorded or improperly recorded

transactions. The converse, however, does not necessarily follow. For example, agreement of cash count with the recorded balance does not provide evidence that all cash received has been properly recorded.

6. This illustrates an unavoidable distinction between fiduciary and recorded accountability: the former arises immediately upon acquisition of an asset; the latter arises only when the initial record of the transaction is prepared.

7. As to assets that are susceptible to loss through errors or irregularities, the comparison with recorded accountability should be made independently. The frequency with which such comparison should be made for the purpose of safeguarding assets depends on the nature and amount of the assets involved and the cost of making the comparison. For example, it may be reasonable to count cash daily but not reasonable to take a physical inventory at that interval. However, a daily inventory of products in the custody of route salesmen, for example, may be practicable as a means of determining their accountability for sales. Similarly, the value and vulnerability of some products may make frequent complete inventories worthwhile.

8. The frequency with which comparison of recorded accountability with assets should be made for the purpose of achieving reliability of the records for preparing financial statements depends on the materiality of the assets and their susceptibility to loss through errors and irregularities.

9. The action that may be appropriate with respect to any discrepancies revealed by the comparison of recorded accountability with assets will depend primarily on the nature of the asset, the system in use, and the amount and cause of the discrepancy. Appropriate action may include adjustment of the accounting records, filing of insurance claims, revision of procedures, or administrative action to improve the performance of personnel.

Appendix 11E

Glossary of Construction Accounting Terms*

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Glossary of Construction Accounting Terms

accelerated cost recovery system (ACRS) A system of asset cost recovery for income tax purposes whereby all eligible property is assigned a prescribed recovery period of 3, 5, 10, 15 or 18 years, depending on the type of property and the time acquired, and is subject to prescribed accelerated recovery rates. Certain optional recovery periods can be elected, as can the straight-line method of cost recovery.

accelerated performance Usually occurs when the contractor accelerates the work, either voluntarily or as a result of pressure from the owner, in order to make up for delays. Increased costs almost always are the result of accelerated performance.

accrual method (for income tax reporting) A method of accounting whereby (1) items of income are included in taxable income when all events have occurred that fix the right to receive such income and the amount of such income can be determined with reasonable accuracy and (2) items of cost or expense are deducted when all events have occurred that establish the liability, the amount of which can be determined with reasonable accuracy.

ACRS *See* **accelerated cost recovery system.**

AGCA Associated General Contractors of America.

aggregating contracts (for income tax purposes) Accounting for two or more contracts as a single contract for income tax purposes. Usually, individual agreements are not aggregated unless they are treated as one contract as a customary practice of the industry or unless there is no business purpose for the separate agreements.

AIA American Institute of Architects.

AICPA American Institute of Certified Public Accountants.

allocation base An accumulation of costs, units, or other measures of contracting activity upon which allocation of overhead or, under limited circumstances, general and administrative costs can be made to contracts, to tasks, or to bid items within contracts. Examples of allocation bases are direct materials costs, direct labor costs or hours, subcontract costs or hours, total direct costs, machine hours, and cubic yards of concrete poured.

alternative A (approach to computation of income earned) Approach by which the estimate of progress toward completion is used to recognize contract revenues and contract costs in the statement of income. For example, if a contract is 50 percent complete, 50 percent of the revenues and 50 percent of the costs are recognized in income.

alternative B (approach to computation of income earned) Provision for accounting for contract performance by recognizing all contract costs, other than costs of certain stored materials, as costs of contract revenue. Revenue is then recognized in whatever amount is necessary to achieve the amount of gross profit based on the percentage of completion of the contract.

anticipated losses on contracts *See* **provisions for anticipated losses on contracts.**

APB Accounting Principles Board of the AICPA.

apportionment (for income tax purposes) The assignment of part of the taxable income of an entity to a particular state. Apportionment is normally done on the basis of a three-factor formula of property, payroll, and sales. Because definitions and formulas differ among states, it is not uncommon for duplications or omissions of taxable income to result when apportioning an entity's taxable income to the states within which it operates.

automated price book Term used to describe price listing on magnetic media provided by a supplier, which contains the most current prices for materials and installation of labor.

back charges Billings for work performed or costs incurred by one party that, in accordance with the agreement, should have been performed or incurred by the party to whom billed. Owners bill back charges to general contractors, and general contractors bill back charges to subcontractors. Examples of back charges include charges for cleanup work and charges for a subcontractor's use of a general contractor's equipment.

backlog The amount of revenue that a contractor expects to be realized from work to be performed on uncompleted contracts, including new contractual agreements on which work has not begun.

basic review An audit review performed by or under the direct supervision of the engagement partner.

bid A formal offer by a contractor, in accordance with specifications for a project, to do all or a phase of the work at a certain price in accordance with the terms and conditions stated in the offer.

bid bond A bond issued by a surety on behalf of a contractor that provides assurance to the recipient of the contractor's bid that, if the bid is accepted, the contractor will execute a contract and provide a performance bond. Under the bond, the surety is obligated to pay the recipient of the bid the difference between the contractor's bid and the bid of the next lowest responsible bidder if the bid is accepted and the contractor fails to execute a contract or to provide a performance bond. Bid bonds serve to provide some assurance that only qualified, responsible contractors will submit bids.

bid-day assistance program A computer program to assist the contractor in determining a bid amount for a particular project. The program accepts the contractor's bid by component and permits adjustments for differing overhead, profit, and other "what if" assumptions.

bidding requirements The procedures and conditions for the submission of bids. The requirements are included in documents such as the notice to bidders, advertisement for bids, instructions to bidders, invitations to bid, and sample bid forms.

bid item *See* **task.**

bid shopping A practice by which contractors attempt, both before and after their bids are submitted, to obtain prices from potential subcontractors and material suppliers that are lower than the contractor's original estimates on which their bids are based or, after a contract is awarded, to induce subcontractors to reduce the subcontract price included in the bid.

billing schedule A contract schedule referencing the contractor's billing requirements to contract performance milestones.

billings in excess of costs and estimated earnings on uncompleted contracts A contractor's liability account, in which amounts billed on contracts that have not yet been earned (sometimes referred to as excess billings) are accumulated. This account includes only amounts pertaining to contracts on which billings exceed costs and estimated earnings.

bills of materials This term refers to "work packages" of similar items, common components, or assemblies, which are used as estimating tools. An example is the layout of the materials required for all the restrooms in a high-rise facility.

bonding A three-party arrangement whereby the surety and contractor join together to provide protection to the project owner. The surety underwrites the construction risk at all stages of construction, including preconstruction, and, in return, is paid a premium for assuming this risk. *See also* **bid bond; performance bond; payment bond.**

bonding capacity The total dollar value of construction bonds that a surety will underwrite for a contractor, based on the surety's predetermination of the overall volume of work that the contractor can handle.

bonding company A company authorized to issue bid bonds, performance bonds, labor and materials bonds, or other types of surety bonds.

bonus clause A provision in a construction contract that provides for payments to the contractor in excess of the basic contract price as a reward for meeting or exceeding various contract stipulations, such as the contract completion date or the capacity, quality, or cost of the project.

break-even estimates *See* **zero estimate of profit/zero-profit margin.**

broker A party that obtains and accepts responsibility as a general contractor for the overall performance of a contract but enters into subcontracts with others for the performance of virtually all construction work required under the contract.

builders' risk insurance Insurance coverage on a construction project during construction, including extended coverage that may be added for the contractor's protection or required by the contract for the customer's protection.

building codes The regulations of governmental bodies specifying the construction standards that buildings in a jurisdiction must meet.

building permit An official document issued by a governing body for the construction of a specified project in accordance with drawings and specifications approved by the governing body.

buying back the bond A surety fulfilling its obligations upon default of a contractor by allowing the owner/obligee to complete the project, then reimbursing the owner.

buy-sell agreement An agreement generally providing for the sale of a business interest at the occurrence of an event—usually death, disability, or retirement. Such agreements provide a ready market for an asset that might otherwise not be readily marketable.

capital expenditure authorization A process used by the contractor whereby the need for additional equipment is justified on a financial basis prior to commitment to the expenditure. Capital expenditure authorizations will typically project expected equipment usage and return on investment.

cardinal change A change order or a magnitude so great that the contractor cannot be forced to do the work. The contractor's further performance is excused as long as it negotiates in good faith for a price increase.

CASB *See* **Cost Accounting Standards Board.**

cash receipts and disbursements method (for income tax purposes) A method of accounting, whereby all items of income are included in taxable income when actually or constructively received and all items of cost or expense are deducted in the taxable year in which they are paid.

ceiling (or upset) price Contract provision for a maximum price, thereby protecting the owner against costly cost overruns. Such contracts may also have provisions that call for any cost savings (actual vs. standard) to be divided between the parties.

change audit Review of job progress by contract management, focusing on changes that may have been directed orally to field personnel.

change in accounting estimates APB Opinion 20 requires that a change in accounting estimate be accounted for (1) in the period of change if the change affects that period only and (2) in the period of the change and future periods if the change affects both. *See also* **revisions in estimates/revised estimates.**

change orders Modifications of an original contract that effectively change the provisions of the contract without adding new provisions. They include changes in specifications or design, method or manner of performance, facilities, equipment, materials, site, and period for completion of work.

claims Amounts in excess of the agreed-upon or contract price that a contractor seeks to collect from customers or others for customer-caused delays, errors in specifications and designs, unapproved change orders, or other unanticipated costs.

claims made A type of professional liability insurance coverage protecting the contractor for claims brought against it during the policy period, irrespective of the time of occurrence of the alleged liability.

claims management A contractor's underlying system for identifying, documenting, and asserting claims against owners and others for owner-caused delays, errors in specifications and design, unapproved change orders, or other unanticipated costs.

clarifications *See* **drawing revisions and clarifications.**

COBOL *See* **Common Business Oriented Language.**

combined financial statements Financial statements presenting the combined financial position and results of operations of a group of affiliated companies to which consolidated financial statements are not applicable. Combined financial statements are preferable when such companies' operations are closely related and are economically interdependent. The companies, therefore, should be viewed as a single economic unit.

combining contracts Grouping two or more contracts into a single profit center for accounting purposes. Appropriate under prescribed circumstances in which a group of contracts are so closely related that they are, in substance, parts of a single project with an overall profit margin. *See also* **profit center.**

committed costs In contract accounting, committed costs are those costs represented by purchase orders on materials not yet shipped and billed and similar costs to which the contractor is committed but for which it has not yet been billed. For managerial control purposes, some contractors charge costs to contracts when committed rather than when the liability is incurred.

Common Business Oriented Language (COBOL) A computer language that is generally accepted in the business community.

compensable delays Delays resulting, through the fault of the owner or its agents, in an increase in the contractor's costs or risks.

completed-contract method A method of accounting for contract profits that delays recognition until completion or substantial completion of the contract.

completion bond A surety bond guaranteeing completion of the job as specified.

compliance testing A process to evaluate the degree to which the internal accounting control procedures described by management are in use and are operating as planned.

consolidation method (joint ventures) A method of accounting in which the venture's accounts are fully consolidated into the venturer's financial statements, with the other venturers' interests shown as minority interests.

constant dollars Dollars that have been adjusted for the impact of inflation; they are either inflated or deflated so that they represent the same purchasing power as the base year (1982 is the common base year for economic numbers and 1987 is the common base year for construction).

construction loan *See* **owner-generated construction loan.**

construction manager An agency arrangement between a contractor and a project owner whereby the contractor agrees to supervise and coordinate the construction activity on the project. The role of the construction manager differs from that of the general contractor in the degree of responsibility taken for contract performance.

construction put in place Dollar value (either constant or current dollars) actually constructed during a given year. If a project is a multiyear one, then only the portion completed or paid for is included. Most Department of Commerce documents use value put in place.

contract bond An approved form of security executed by a contractor and a surety for the execution of the contract and all supplemental agreements, including the payment of all debts relating to the construction of the project.

contract changes *See* **change orders.**

contract cost breakdown An itemized schedule prepared by a contractor after the receipt of a contract, showing in detail the elements and phases of the project and the cost of each element and phase.

contract guarantees Guarantees made by a contractor to an owner, such as a guarantee that a power plant, when completed, will generate a specified number of kilowatt hours.

contract item (pay item) An element of work, specifically described in a contract, for which the contract provides either a unit or lump-sum price.

contract milestones Important events in contract completion, such as completion of excavation or erection of facilities.

contract options Provision for the performance of work beyond the basic contract scope or for the addition of new items under the same contract.

contract overrun/underrun The amount by which the original contract price, as adjusted by change orders, differs from the total cost of a project at completion.

contract performance bond The security furnished by the contractor to guarantee the completion of the work on a project in accordance with the terms of the contract.

corpnerships A partnership in which all of the members are corporations. This form avoids the potentially adverse income tax consequences of the earnings of the partnership being attributed to the partners as individuals.

Cost Accounting Standards Board (CASB) A governmental board charged with the responsibility of promulgating cost accounting standards for negotiated federal contracts.

cost method of accounting (joint ventures) A method of accounting for a venturer's interest in a joint venture whereby the investment is recorded at cost and income is recognized as distributions are received from earnings accumulated by the venture since the date of acquisition by the venturer.

cost of earned revenue The portion of estimated total contract cost that relates to the portion of total estimated contract revenue earned to date. *See also* **alternative A** (approach to computation of income earned); **alternative B** (approach to computation of income earned).

cost-plus award fee A cost-type contract in which the contractor's fee is composed of a fixed part and a variable part. The variable part is an award based on performance, including timeliness and cost efficiency.

cost-plus fixed fee A cost-type contract providing reimbursement to the contractor for its costs plus compensation of a predetermined fixed amount as the contract profit.

cost-plus/time-and-material contract Contract types that address the contractor's performance and compensation from an efforts-expended point of view. The means of compensation is set forth in terms of specific costs incurred by the contractor or the time and materials consumed.

costs and estimated earnings in excess of billings on uncompleted contracts A contractor's asset account in which amounts earned on contracts that have not yet been billed (sometimes referred to as "underbillings") are accumulated. This account includes only amounts pertaining to contracts on which costs and estimated earnings exceed billings.

cost-sharing limitations Ceilings or limitations on the amount of contract revenue otherwise available from the owner under cost-sharing provisions.

cost to complete *See* **estimated cost to complete.**

cost-to-cost method A method of measuring progress toward contract completion by the ratio of costs incurred to estimated total costs. Costs incurred would exclude costs of certain uninstalled materials.

cost-type contracts Contracts providing for reimbursement of allowable costs, plus a fee that represents the contractor's profit. The "best efforts" of the contractor are the prime requirement in the cost-type contract. The contractor is required to put forth a standard of effort in performance of the contract that is based upon ordinary industry commercial standards.

cost without fee A cost-type contract variation that is similar to a cost-sharing contract, except that all costs are reimbursed.

CPM *See* **critical path method.**

CPU Central processing unit of a computer system.

critical path method (CPM) A network scheduling method that shows the sequences and interdependencies of activities. The critical path is the sequence of activities that shows the shortest time path for completion of the project.

current dollars Dollars not adjusted for the impact of inflation over time. A current 1981 dollar does not have the same purchasing power as a current 1972 or 1986 dollar.

custom-designed applications Software designed specifically to a user's needs as opposed to a preexisting package of general application.

customer-furnished materials Construction materials are purchased by the owner for the contractor's use on the construction project. Under such circumstances, the contractor normally informs the owner of the specifications of materials required and the owner purchases them or has the contractor act as its agent in purchasing them, using the owner's purchase orders and, sometimes, checks drawn against the owner's bank account.

customer's extras *See* **extras.**

default and termination Contract provisions setting forth the conditions under which the parties can be considered in default. The specific conditions under which the contractor may close the job down and other specific procedures for terminating the contract prior to completion may be given.

delay Failure to meet time requirements of a construction contract. *See also* **compensible delays; excusable delays; no damage for delays.**

demobilization A contractor's activities in shutting down a job site after project completion.

design/build contractor A contractor who provides engineering or architectural design services in addition to construction work on a project.

direct costing The process of assigning only direct costs and variable indirect costs to contracts, thus accounting for the entity's contribution to fixed costs and profits.

direct costs Costs that are consumed and directly identifiable with the performance of the contract. They include direct labor, direct materials, and equipment.

direct labor variances Variances resulting from use of standard costing for direct labor. Direct labor variances can be broken down into rate and efficiency variances.

direct material variances Variances resulting from use of standard costing for direct materials. Direct material variances can be broken down into price and usage variances.

direct write-off (or specific charge-off) method of deduction for bad debts An income tax accounting method, whereby worthless accounts are deducted at the time they become worthless, in contrast to the reserve method of accounting for bad debts. *See also* **reserve method.**

draw The amount of progress billings on a contract that are currently available to a contractor under a contract with a fixed payment schedule.

drawing revisions and clarifications The practice of an architect's issuing revised drawings as "clarifications," which are, in substance, changes to the scope of the contract.

economic price adjustments Contract provisions allowing price adjustments based on specified contingencies, such as material-price or labor-rate changes. The adjustments can either increase or decrease the contract price. A contract with a cost-of-living labor index adjustment clause is an example.

efficiency variance For labor costs, the efficiency variance is the difference between the two products obtained by multiplying the actual and standard amounts of labor by the standard labor rates. For variable overhead costs, the efficiency variance is the difference between the two products of the actual base units incurred versus the standard base units at the standard rates.

efforts-expended methods Methods of measuring progress of a contract toward completion based on a measure of the work, such as labor hours, labor dollars, or machine hours.

Eichleay Formula A formula that develops and documents a figure for home office overhead to be used in assertion of claims.

equipment log A log detailing all of the equipment dedicated to a particular job, as well as the time that the equipment is planned to be used on the job. The equipment log is important to equipment cost recovery in the event of owner-caused delays or other claims involving equipment cost overruns.

equipment pools A cost center used to account for a contractor's equipment costs, including repairs and maintenance, depreciation, insurance, storage, and other equipment costs. These costs are accumulated in equipment pools and charged to contracts using rental rates, calculated either to recover costs or to return a profit on the equipment investment.

equity method of accounting (joint ventures) The equity method is the traditional one-line method prescribed by APB Opinion 18 for investments in corporate joint ventures and for investments in common stock that represent less than a majority interest but that evidence an ability to exercise significant influence.

ERISA Employee Retirement Income Security Act of 1974.

escalation clause A contract provision that provides for adjustments of the price of specific items as conditions change (e.g., a provision that requires wage rates to be determined on the basis of wage levels established in agreements with labor unions).

estimate (bid function) The amount of labor, materials, and other costs that a contractor anticipates for a project, as summarized in the contractor's bid proposal for the project.

estimated cost to complete The anticipated additional cost of materials, labor, and other items required to complete a project at a scheduled time.

excusable delays Delays caused by factors that are not the fault of the party delaying.

excusable vs. inexcusable Contract change provisions that define liability as to changes, that is, who, if anyone, may be held liable for the impact of a change or changes on the project. This type of provision generally sets forth what changes are or are not contractually allowed.

expanded equity method of accounting (joint ventures) A method of accounting wherein the venturer presents its proportionate share of the venture's assets and liabilities in capsule form, segregated between current and noncurrent. The elements of the investment are presented separately by including the venturer's equity in the venture's corresponding items under current assets, current liabilities, noncurrent assets, noncurrent liabilities, revenues, and expenses, using a caption such as "investor's share of net current assets of joint venture."

extended-period long-term contract A contract that the taxpayer estimates will not be completed within two years (long-term contracts other than construction) or within three years (long-term construction contracts) of the contract commencement date. However, a construction contract will not be considered an extended-period long-term contract if the taxpayer's average annual gross receipts over the three taxable years ending before the taxable year in which the construction contract was signed do not exceed $25 million. An extended-period long-term construction contract is subject to more extensive cost allocation rules than are other construction contracts.

extras (customer's extras) Additional work, not included in the original plan, requested of a contractor, that is billed separately and does not alter the original contract amount.

face checking Frequent unexpected visits to jobs by timekeepers or supervisory personnel who are expected to know by sight each person working in order to keep control over actual hours worked.

FASB Financial Accounting Standards Board.

fast-tracking Accelerated performance requiring performance of portions of interdependent phases of project work simultaneously, such as the design phases continuing after the excavation phase has begun.

favorable and unfavorable variances Differences between actual and standard costs. Favorable variances are those in which actual is less than standard. Unfavorable are those in which actual exceeds standard.

FCPA *See* **Foreign Corrupt Practices Act.**

field funds Imprest accounts used for the purpose of either satisfying payroll expenditures or paying incidental expenditures at the job site.

FIFO *See* **first-in, first-out method.**

final acceptance The customer's acceptance of the project from the contractor on certification by an architect or engineer that the project is completed in accordance with contract requirements. The customer confirms final acceptance by making final payment under the contract, unless the time for making the final payment is otherwise stipulated.

final inspection The final review of the project by an architect or engineer before issuance of the final certificate for payment.

firm target cost incentives An establishment of target profits and costs at the outset of the contract, along with a price ceiling. A formula is then devised, based on the final negotiated cost-to-target cost ratio, for establishing the final profit and the total contract price.

first-in, first-out method (FIFO) Flow of cost assumption used to cost inventories. It is assumed that the first items purchased are the first sold or consumed.

fixed-price contract A contract providing for a single price for the total work to be performed on a construction project.

flow-down clauses Clauses in a contractor's contracts with subcontractors that provide that certain terms of the prime contract "flow down" to, and bind, the subcontractors. Such a clause could incorporate time limits for submission of change orders, special methods of dispute resolution, and a requirement for complete release prior to final payment.

forbearance *See* **loan or forbearance.**

force majeure Acts of God (e.g., floods, earthquakes, or other types of natural disasters) that are excuses for delay.

Foreign Corrupt Practices Act (FCPA) Enacted into law in 1977 as an amendment to the Securities Exchange Act of 1934, the FCPA requires companies that must file periodic reports to comply with certain accounting standards. The FCPA also makes it unlawful to engage in certain corrupt practices involving foreign officials.

fringe benefit pools Cost centers used for the accumulation of fringe benefit costs. Such costs are normally accumulated in fringe benefit pools and charged to jobs and other cost objects using appropriate fringe benefit rates.

fringe benefit rates Rates developed and used to charge fringe benefit costs to contracts and other cost objects and to contract tasks or bid items.

front-end loading A procedure under which progress billings are accelerated in relation to costs incurred by assigning higher values to contract portions that will be completed in the early stages of a contract than to those portions that will be completed in the later stages, so that cash receipts from the project during the early stages will be higher than in the later stages.

full absorption (to contracts) The process of assigning all overhead costs and, when permitted, general and administrative costs to contracts.

full absorption (to contract tasks) The process of assigning all overhead costs and, when permitted, general and administrative costs to contract tasks or bid items.

functional audits Audits that review the duties of a specific type of department within the company. The department will typically be one whose function affects all the projects on which the contractor is working.

GAO U.S. General Accounting Office.

general and administrative cost pools Cost centers used for the accumulation of general and administrative costs. When permitted, such costs are accumulated in a general and administrative cost pool and charged to jobs using an appropriate allocation base.

general contractor A contractor who enters into a contract with the owner of a project for the purpose of construction and who takes full responsibility for its completion, although the contractor may enter into subcontracts with others for the performance of specific parts or phases of the project.

governmental prequalification reporting Reports required to be filed by contractors with agencies of federal, state, or country governments in order to qualify for bidding on or performing work for such agencies.

gross-profit approach *See* **alternative B** (approach to computation of income earned).

HVAC Heating, venting, and air conditioning task of a construction project.

incentive based on cost A cost-type contract variation in which the determination of the contractor's fee is by a formula (a type of flexible revenue budget) that contains target, minimum and maximum fees, and the method for changing the application of the formula.

incentive based on performance A cost-type contract variation in which increases and decreases to a stated fee are determined by reference to the contractor's performance measured against specific targets provided in the contract.

incentives Contract clauses that seek to reward or penalize a contractor for favorable or unfavorable contract performance. *See also* **bonus clause; penalty clause.**

independent review Audit review performed by a specialist or firm partner independent of direct supervision of the engagement.

inherent hazards (that make estimates doubtful) Hazards involving events and conditions that would not be considered in the ordinary preparation of contract estimates and would not be expected to recur frequently, given the contractor's normal business environment. Inherent hazards that may cause contract estimates to be doubtful usually differ from inherent business risks.

input measure Those measures of percentage of completion that depend on measures of effort and resources applied to a project. The labor-hours method is an example of an input measure.

interactive time sharing Provides continuous access to the computer system by the user. Data is entered and processed immediately. The user has virtually complete control over when jobs are processed. In most respects, interactive time sharing provides most of the benefits of an in-house computer system.

interest-on-default clauses Contract clauses that provide for payment of interest in the event of default.

internal control The system in any organization that assures that management's plans and intentions are being carried out.

investment carrying costs (contractor's equipment investment) Insurance, taxes, storage, other equipment division costs, and interest, minus equipment division income.

investment credit A credit against income taxes for investment in eligible business property. The credit is a specified percentage of eligible investment expenditures, subject to limitations.

investment maintenance costs (contractor's equipment investment) Repairs and maintenance, repair parts, and depreciation (a type of maintenance cost in that it measures the failure to keep the equipment in its original state).

IRC Internal Revenue Code.

IRS Internal Revenue Service.

job cost system A system whereby a contractor accounts for his costs separately by job and by task or bid item within a job.

job diary A daily, updated "picture" of the job and its progress. The level of recovery from job changes, delays, or other events is usually tied closely to the quality of the job diary. The job diary is the cornerstone of the whole job documentation system.

job overhead Costs that are specifically identifiable to contracts but not specifically identifiable to tasks or bid items within contracts. Examples are mobilization and demobilization costs, job support services (e.g., field payroll and supervision), and costs of physical security.

joint venture An entity owned, operated, and jointly controlled by a small group of participants as a separate and specific business or project for the mutual benefit of the participants, including arrangements for pooling equipment, bonding, financing, and sharing skills (e.g., engineering, design, and construction).

last-in, first-out method (LIFO) Flow of goods assumption used to cost inventories. It is assumed that the last items purchased are the first sold or consumed.

letter agreement (letter of agreement) A letter stating the terms of an agreement between addressor and addressee, usually prepared for signature by the addressee as indication of acceptance of those terms as legally binding.

letter of intent A letter signifying an intention to enter into a formal agreement, usually setting forth the general terms of such an agreement.

level-of-effort term contract Provision applied, usually to research and development projects, wherein the contractor must devote a specified level of effort for a stated period of time to earn a fixed amount of revenue.

lien/lien rights An encumbrance that usually makes real or personal property the security for payment of a debt or discharge of an obligation.

LIFO *See* **last-in, first-out method.**

liquidated damages Construction contract clauses obligating the contractor to pay specified daily amounts to the project owner as compensation for damages suffered by the owner because of the contractor's failure to complete the work within a stated period of time.

loan or forbearance A legal characterization of amounts withheld from payment that could subject such transactions to limits of usury laws.

loss contract A contract on which the estimated cost to complete exceeds the contract price.

lump-sum contract *See* **fixed-price contract.**

maintenance bond A document, given by the contractor to the owner, guaranteeing rectification of defects in workmanship or materials for a specified time following completion of the project. A one-year bond is normally included in the performance bond.

management information systems (MIS) The systems of information upon which a contractor manages its business. An effective management information system produces timely, accurate, and relevant information upon which to base management decisions.

manufacturing contractor A contractor who produces for order under production-type contracts, generally involving a portable product.

mechanics lien bond A mechanics lien bond guarantees that a project of private work for unpaid laborers and materialmen will be free of mechanics liens.

mechanics lien law A lien law intended to provide a source of recovery for unpaid laborers and materialmen on private work. A mechanics lien law affords security to the claimants, since the owner must discharge all liens before he can obtain a clear title to the property.

microcomputer An inexpensive computer system consisting of a processing unit, or CPU, a CRT-type terminal input data display device, and a mass storage unit storing files or data bases—typically hard disks or diskettes (floppy disks).

MIS *See* **management information systems.**

mobilization A contractor's activities in starting up a job site after contract award.

negotiated contract A contract for construction developed through negotiation of plans, specifications, terms, and conditions without competitive bidding.

negotiated insurance placements A process of negotiating insurance coverage and related costs as contrasted with obtaining coverage through competitive bid.

no-damage clauses Contract clauses that exculpate the owner for owner-caused delays by compensating the contractor with additional time to complete the contract.

no damage for delays Delays an owner is liable for, caused by its acts or omissions that are not forgiven by a specific contract provision.

noninsurance transfer of risk Transfer of risk to other than professional risk takers (insurance companies). Examples of noninsurance transfers of risk are hold-harmless agreements and/or waivers of subrogation. A waiver of subrogation in the contractor's subcontract agreement can prevent the subcontractor's insurer from pursuing a recovery for damage to its insured's equipment, even if the contractor's employee caused the damage.

nonqualified plan A deferred compensation arrangement that can either be funded or unfunded. Generally, if the arrangement is funded and nonforfeitable, the employee recognizes income and the employer takes a current deduction. Otherwise, both are deferred until either cash payments are made to the employee or the employee's rights to such payments become nonforfeitable.

off-balance-sheet financing Financing a project without increasing the debt on the investor's balance sheet, such as by having a joint venture incur the debt and accounting for the joint venture by the equity method.

office automation The automation of the information input, processing, storage, and output functions of an office.

OMB U.S. Office of Management and Budget.

oral instructions or modifications Informal directions given on the job site or elsewhere by inspectors, owners, and others with apparent authority, which may have the effect of changing the scope of work under the contract.

other direct costs Contract direct costs other than direct materials, direct labor, and subcontract costs.

output measure A method of measuring progress of a contract toward completion in terms of results achieved (e.g., units produced, units delivered, contract milestones, and value added).

overhead costs Those costs, other than general and administrative costs, that cannot be specifically identified to contract profit centers. Examples of overhead costs are general supervision, supplies, quality control, inspection, and support services such as procurement, payroll preparation, job billing, and accounting.

overhead pools Cost centers used for accumulation of overhead costs. Such costs are normally accumulated in an overhead pool and charged to jobs using an appropriate allocation base.

owner-generated construction loan Construction financing obtained by the project owner against which the construction project is pledged as collateral.

partial or proportionate consolidation (joint ventures) A method of accounting whereby the venturer records its proportionate interest in the venture's assets, liabilities, revenues, and expenses on a line-by-line basis and combines the amounts directly with its own assets, liabilities, revenues, and expenses without distinguishing between the amounts related to the venture and those held directly by the venturer.

payment bond A bond executed by a contractor to protect suppliers of labor, materials, and supplies to a construction project.

payment schedule Provisions in a contract for payments to a contractor of agreed-upon sums upon attainment of contract milestones.

pay request A form of contractors' billings, made by a general contractor to the owner or by a subcontractor to the general contractor.

PDL (price determined later) letter A letter from an architect/owner directing a change in scope and providing that the price will be determined later.

penalty clause A provision in a construction contract that provides for a reduction in the amount otherwise payable to the contractor as a penalty for failure to meet targets or schedules specified in the contract or for failure of the project to meet contract specifications.

percentage-of-completion method A method of accounting in which contract profit is recognized as contract performance, using a measure of percentage-of-completion appropriate to the circumstances.

performance bond A bond issued by a surety and executed by a contractor to provide protection against the contractor's failure to perform a contract in accordance with the bond's terms.

performance incentives Provisions made in the contract whereby the contractor is rewarded for surpassing and penalized for failing to meet specific performance targets.

performance pay plan A bonus plan, usually for employees other than executive officers, based on specific performance, such as a supervisor's completing a job budgeted for 1,000 hours in 900 hours.

PERT *See* **Program Evaluation and Review Technique.**

point estimates A contractor's estimates of total contract revenue and total contract costs in terms of single amounts.

precontract costs Costs incurred in anticipation of future contracts, including (1) costs of mobilization, engineering, architectural, or other services incurred on the basis of commitments or other indications of interest in negotiating a contract; (2) costs incurred for assets to be used in connection with specific anticipated contracts (e.g., costs for the purchase of production equipment, materials, or supplies); (3) costs incurred to acquire or produce goods in excess of the amounts required under a contract in anticipation of future orders for the same item; and (4) learning, start-up, or mobilization costs incurred for anticipated but unidentified contracts.

prequalification The written approval of an agency seeking bids on a project that authorizes a contractor to submit a bid when bidders are required to meet certain standards.

price variance A direct materials variance of actual direct materials costs from standard direct materials costs. The difference between the actual cost of materials and what the cost would have been had the same quantities been purchased at standard cost.

prime contract A contract between an owner of a project and a contractor for the completion of all or a portion of a project, under which the contractor takes full responsibility for the completion of the work.

Private Companies Practice Section One of the two sections of the Division of Firms of the AICPA, which contains both voluntary and self-regulatory sections.

profit center A unit for the accumulation of revenues and costs for the measurement of income. For business enterprises engaged in the performance of contracts, the profit center for accounting purposes is usually a single contract; but under some specified circumstances, it may be a combination of two or more contracts, a segment of a contract, or a group of combined contracts.

Program Evaluation and Review Technique (PERT) A network-type scheduling system for contract performance.

progress (advance) billings Amounts billed, in accordance with the provisions of a contract, on the basis of progress to date under the contract.

prospective periodic redetermination of price A revision of the contract price, subject to a ceiling price, after the passage of an initial period of performance (or a delivery of a defined base number of units). This type of pricing is used in some government contracting.

provisions for anticipated losses on contracts Accounting recognition that a loss is expected on a contract. Provisions for the entire estimated loss on a contract should be made in the period that such loss becomes evident.

punch list A list made near the completion of work indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract.

qualified plan A deferred compensation plan in which current funding is permitted and the employer gets a current income tax deduction but the employee is not taxed until he or she actually receives the funds.

quantity takeoffs An itemized list of the quantities of materials and labor required for a project with each item priced and extended; used in preparing a bid on the project.

quantum meruit That which is merited or deserved.

quid pro quo Fair or equitable compensation for services or work performed.

range estimates A contractor's estimates of total contract revenue and total contract cost in ranges of amounts. If the contractor can determine the amounts in the range that are most likely to occur, these amounts should be used in accounting for the contract under the percentage-of-completion method. If the most likely amounts cannot be determined, the lowest probable level of profit in the range should be used in accounting for the contract until the results can be estimated more precisely.

rate variance A direct labor variance of actual direct labor costs from standard direct labor costs. The rate variance is the difference between the two products obtained by multiplying the actual labor hours by the actual rates and the standard rates.

reasonably dependable estimates The ability of a contractor to estimate the extent of contract progress toward completion, contract revenues, and contract costs, at least to the degree that the minimum total revenue and the maximum total cost can be estimated with sufficient confidence to justify the contractor's bids on contracts.

Regulation S-X A regulation of the SEC governing the form and content of financial statements.

remote-batch processing technique A technique whereby data that is entered through the terminal is accumulated either at the terminal or at the computer site. Processing is performed at the convenience of the vendor, usually during off hours. The processed data is then transmitted back to the user's terminal or printer.

Report Program Generator (RPG) A computer language of general acceptance.

resale certificate A certification from a purchaser of goods or equipment that the purchase was for resale and therefore the purchaser will be liable for the sales tax upon ultimate sale.

reserve method An income tax accounting method whereby provision is made for losses on accounts receivable based on estimates, as contrasted with the direct write-off method. *See also* **direct write-off (or specific charge-off) method of deduction for bad debts.**

retainage *See* **retentions.**

retentions Amounts withheld from progress billings until final and satisfactory project completion.

retrospective rating plan A workers' compensation plan that contracts for a specified premium at the beginning of the term with the understanding between the parties that the rating used in computing the original premium will be retroactively adjusted for the actual loss experience of the contractor.

revenue-cost approach *See* **alternative A** (approach to computation of income earned).

revisions in estimates/revised estimates Adjustments to the original estimates of the total contract revenue, total contract cost, or extent of progress toward completion. As experience is gained, revisions in estimates are usually required, even though the scope of the work required under the contract may not change.

ripple effect The impact of a great number of changes to a contract that, taken individually, are small but, in the aggregate, have a substantial effect on the overall performance plan.

risk management A management approach to controlling the costs associated with the possibility of fortuitous loss. The risk-management approach recognizes that insurance is the most expensive technique to use and seeks to use the insurance mechanism only as a last resort.

risk retention The planned acceptance of losses through the use of insurance policy deductibles, the deliberate use of noninsurance, or the implementation of a formal self-insurance program.

RPG *See* **Report Program Generator.**

SAP Statements on Auditing Procedures, issued by the Committee on Auditing Procedure of the AICPA.

SAS Statements on Auditing Standards of the Auditing Standards Board (previously the Auditing Standards Executive Committee) of the AICPA.

scheduling Planning and marshaling of manpower, materials, subcontractors, and other resources to requirements of contract performance.

SEC The Securities and Exchange Commission.

SEC Practice Section One of the two Divisions of Firms of the AICPA into voluntary, self-regulatory sections.

segmenting contracts Dividing a single contract or group of contracts into two or more profit centers for accounting purposes. This is appropriate under certain circumstances when the contract or contracts include several elements or phases, each of which has been negotiated separately with the same customer without regard to the others. Revenues are assigned to the different segments to achieve different rates of profitability based on the relative value of each segment to the total. *See also* **profit center.**

segregated cost approach An approach to documenting claims that segregates and identifies each matter of delay and defines the related costs incurred as a result of the delay.

separating contracts (for income tax purposes) The division of a single contract into several segments for income tax reporting purposes. Contracts usually subject to such division and acceleration of income are those that separate delivery and acceptance of contract phases.

severing contracts (for income tax purposes) *See* **separating contracts.**

SFAS Statements of Financial Accounting Standards, issued by the FASB.

software directory subscription service Services offered by publishers containing information on available software packages, including construction industry software.

SOP Statements of Position of the Accounting Standards Division of the AICPA.

specialty contractor *See* **trade or specialty contractor.**

spending variance A variance of actual variable overhead from standard variable overhead. The difference between actual variable overhead and the amount obtained by multiplying the base units (e.g., direct labor hours) by the standard rate.

split-dollar life insurance A type of life insurance policy whereby the company owns the policy and has the rights to its cash value but the employee names the beneficiary and has the insurance protection. The employer gets no tax deduction for premium payments. The employee is taxed on an amount equal to the cost of a one-year nonrenewable term policy.

standard costing Accounting for costs comparing predetermined standards for materials, labor, and variable overhead with actual costs. An accounting for variances from standard can be used to identify variances of direct materials price and usage, direct labor rate and efficiency, and variable overhead spending and efficiency.

stop order A formal notification to a contractor to discontinue some or all work on a project for reasons such as safety violations, defective materials or workmanship, or cancellation of the contract.

stored materials *See* **uninstalled materials.**

subcontractor A contractor who enters into a contract with the general contractor of a construction project and who is responsible for completion of a specific phase of the project. Subcontractors are usually specialists within the industry, such as electrical or mechanical subcontractors.

subcontractor bond A bond executed by a subcontractor and given to the prime contractor to assure the subcontractor's performance, including the payment for all labor and materials required.

substantial completion The point at which the major work on a contract is completed and only insignificant costs and potential risks remain. Revenue from a contract is recognized under the completed-contract method when the contract is substantially completed.

substantive tests All of the analytical review procedures and details of the particular classes of transactions and balances that the auditor deems necessary under the circumstances.

successive target cost incentives A contract provision for initial target costs and profits, a price ceiling, and a formula by which to fix the target profit. This variation further provides a point in production for the application of the formula.

surety A three-party relationship between the bonding company, the contractor, and the owner (or the bonding company, the subcontractor, and the contractor), whereby the surety guarantees the performance of the contractor or subcontractor (can also refer to the bonding company.)

system conversion The implementation of a new system by conversion of an existing manual or automated one.

takeout commitment A commitment for permanent financing obtained by a project owner at, or prior to, the time of obtaining the construction loan. The takeout commitment provides assurance to the construction lender of a source of repayment of the construction loan.

task A separate phase of a construction contract, such as excavation or erection. A contractor's bid price is normally built up by estimating costs for each task or bid item separately.

time-and-materials contract A contract under which the contractor agrees to complete a project of general or specific scope in exchange for rates for the time incurred and materials consumed. The rates would normally be calculated to recover indirect labor, overhead, and profit.

time sharing A system of making the resources of a large computer system available to many users simultaneously. Generally, the computer is accessed via telephone lines from terminals in the users' offices.

total-cost claim A concept in contract claims theory in which a contractor who has bid the job at a certain price is entitled to the difference when the job costs more than the bid price. The assumption is that anything that happened that caused the job to run over is someone else's fault. Today, the concept of the total-cost claim may suggest that the contractor does not have the necessary information and documentation to present a detailed and well-supported claim.

trade or specialty contractor Contractors specializing in particular phases of construction, such as steel erection or roofing. Trade or specialty contractors normally function as subcontractors on construction projects.

trade stacking Crowding on the job site by the stacking of various trades that are not normally together on a job at the same time. Trade stacking could result from owner-caused delays.

turnkey project A project for which a contractor undertakes to deliver under contract a fully operational and tested facility before being entitled to payment.

unbalanced bids A proposal under which the contract price is allocated to phases or items in the contract on a basis other than that of cost-plus overhead and profit for each bid item or phase. A common practice is to front-end load a bid proposal to obtain working capital to finance the project. Another form of unbalanced bid on unit-price contracts assigns higher profits to types of work for which the quantities are most likely to be increased during the performance of the contract.

unbilled receivables Receivables that arise when revenues have been recorded but the amount cannot be billed under the terms of the contract until a later date. Such balances may represent unbilled amounts arising from the use of the percentage-of-completion method of accounting, incurred costs to be billed under cost-reimbursement-type contracts, or amounts arising from routine lags in billing.

undivided interests in joint ventures Each venturer owns an undivided pro rata share of each of the assets and owes an undivided pro rata share of each of the liabilities of the joint venture; thus, the venturer has an undivided interest in the net equities of the venture.

uninstalled materials Materials acquired for a specific contract and usually stored at the job site awaiting installation.

unitary jurisdiction The practice of some state taxing jurisdictions to group the financial activities of related entities for income tax reporting purposes. Apportionment of the combined entities' tax results may then have to be made to two or more states. *See also* **apportionment** (for income tax purposes.)

unit-price contract A type of construction contract providing for compensation to the contractor based on a specific price for a specific unit of production.

units-of-delivery method An output method of measuring progress of a contract toward completion in terms of results achieved, e.g., tonnage of linear steel, erected.

units-of-work performed An output method of measuring progress of a contract toward completion in terms of results achieved, e.g., cubic yards of concrete poured.

unpriced change orders Change orders for which the work to be performed has been defined and agreed to but for which the adjustment to the contract price is to be negotiated later.

upset price *See* **ceiling (or upset) price.**

usage variance A variance of actual direct materials cost from standard direct materials cost. The difference between the two products obtained by multiplying the actual and standard amounts of materials used by the standard price of materials.

use rate theory A method of establishing operating unit costs for construction equipment. The following factors are considered: (1) the cost of the equipment less estimates of its salvage value or rental, if it is leased; (2) the probable life of the equipment; (3) the average idle time during the life or period of hire of the equipment; and (4) the costs of operating the equipment (e.g., repairs, storage, insurance, and taxes). A rate may be arrived at that, based on the reported use of the equipment, will serve as a basis for charging the contracts on which the equipment is used.

usury Unlawfully high interest rates.

waiver of lien An instrument by which the holder of a mechanics or materials lien against property formally relinquishes that right.

warranty (maintenance) period A specified period, which is normally specified in the contract, after the completion and acceptance of a project during which a contractor is required to provide maintenance construction and for which the contractor is required to post a maintenance bond.

work-in-progress Construction contracts in an uncompleted or undelivered state.

wrap-up programs Owner-controlled insurance programs, whereby the owner decides to furnish the insurance for the project and requests that the contractor reduce the bid accordingly. In some instances, the programs are "contractor-controlled," whereby the contractor controls the placement of casualty insurance and, possibly, surety bonds for subcontractors.

zero estimate of profit/zero-profit margin A contractor's estimate of total contract revenue and total contract costs are equal amounts, so that no profits are assumed. This is appropriate when estimating the final outcome may be impractical, either in terms of single amounts or ranges of amounts, except to assure that no loss will be incurred. A change to a more precise estimate should be made when results can be estimated more precisely.

CPE EXAM

1. A contractor has contracts which it has completed during the fiscal year and contracts which are still in progress at the fiscal year end. The measure of true performance can be obscured by the effects of changes in estimates for contracts in progress but cannot be obscured by the effects of changes in estimates for completed contracts. True or False?

2. The following is a characteristic *not* common to the construction industry:

   a. Prevalence of working capital loans from banks and other lending institutions used to finance operations.

   b. Work obtained through competitive bidding.

   c. Each project is unique, conforming to customer's specifications.

   d. The contractor does not have title to the work in progress.

3. The audit of a construction contractor concerns the contractor's ability to estimate total contract revenues, total contract costs, and contract percentage of completion. True or False?

4. The main objective of an auditor's job site visit(s) is normally:

   a. To ascertain that the project exists.

   b. To ascertain the approximate percentage of completion of the work in progress.

   c. To understand and test the accounting controls at the job site.

   d. To ascertain that the conditions at the job site conform to those contemplated at the time the bid was made.

5. Changes in estimates of contract profits are normally accounted for:

   a. By retroactively restating prior years' financial statements.

   b. By making a "catch-up" adjustment, reporting the full effect of the change in the income statement of the year in which it becomes known.

   c. A combination of (a) and (b) above, depending on materiality.

   d. By accounting for the change prospectively, over the year of change and all future years of the contract.

6. A contractor's surety does not always consider the following to be an important positive factor:

   a. The contractor's ability to estimate as evidenced by moderate "profit fade."

   b. The contractor's success in the geographic area in which the new work is to be performed.

   c. The contractor's success with the type of work to be constructed.

   d. A large backlog based on awarded contracts.

CPE EXAM (Continued)

7. Under the percentage of completion method, a contractor recognizes income:

   a. When the earnings process creates a corresponding asset to be recognized.

   b. When realized.

   c. In advance of realization.

   d. At an appropriate point beyond realization.

8. Under the "cost to cost" method, the process of incurring additional contract costs with no corresponding increase in estimated costs will have the effect of increasing reported net income. True or False?

9. Even if an auditor chooses not to rely on controls, he/she must nevertheless document procedures performed to obtain an understanding of those controls. True or False?

10. An auditor should ascertain that the accounting system has the capability to compare actual contract costs to date with:

    a. Estimated costs under optimum conditions.

    b. The original contract cost estimates.

    c. The latest revised contract estimates.

    d. Both (b) and (c) above.

11. If the same types of costs are not used in contract bids and in job cost accounting, it may appear that jobs are being bid profitably when they are actually being bid at a loss. True or False?

12. From an audit standpoint, it is important to know how completed jobs came in, including effects of significant claims, backcharges, etc. that materialized long after the project had been turned over to the owner. True or False?

13. An auditor may choose to omit audit procedures directed toward some of a contractor's internal control structure policies and procedures because:

    a. Policies and procedures may not pertain to an assertion.

    b. Policies and procedures are unlikely to be effective.

    c. It would not be efficient for the auditor to apply such audit procedures.

    d. All of the above.

14. When considering the use of evidential matter from prior audits, the auditor need not perform tests in the current period to ascertain whether any changes have occurred. True or False?

CPE EXAM (Continued)

15. An auditor may find a need to depart from his or her preliminary audit strategy because:

    a. He or she found a more effective or more efficient way to accomplish the audit results.

    b. It was determined that audit resources were needed on other parts of the audit.

    c. He or she decided to modify the overall audit objectives due to lack of resources.

    d. The client disagrees with the audit approach.

16. One component used in the decision of which job site(s) to visit is:

    a. Jobs which are a "model" of project performance so the auditor can clearly see the controls and conditions at their optimum.

    b. Jobs which will be completed prior to the auditor's completion of fieldwork.

    c. Jobs with unusually large "bid spreads."

    d. Jobs which have just begun so the auditor can clearly see the mobilization effort.

17. Job site visits are always required because:

    a. They are an essential element of sufficient competent evidential matter.

    b. They have the effect of strengthening the control environment at the job site.

    c. They have substantial educational value to the auditor.

    d. They are not always required.

18. A job schedule is of great value to an auditor as a tool for analytical procedures. True or False?

19. An audit of contract costs to complete is of value to the auditor because:

    a. It is a component of the revenue recognition process.

    b. It is a tool to assessment of the entity's ability to continue as a going concern.

    c. It establishes relationships which assist the auditor in his or her analytical procedures.

    d. All of the above.

20. A job schedule purged of the effects of changes in estimates of contract profitability should agree, in total, with corresponding totals on the statement of income. True or False?

Appendix A -- AICPA Audit
and Accounting Guide --
Construction Contractors

Audit and Accounting Guide

CONSTRUCTION CONTRACTORS

PREPARED BY THE CONSTRUCTION CONTRACTOR GUIDE COMMITTEE

Including

STATEMENT OF POSITION

ISSUED BY THE ACCOUNTING STANDARDS DIVISION

This edition of the audit and accounting guide *Construction Contractors*, has been modified by the AICPA staff to include certain changes necessary due to the issuance of authoritative pronouncements since the guide was originally issued. The changes made are identified in a schedule in Appendix I of the guide. The changes do *not* include all those that might be considered necessary if the guide were subjected to a comprehensive review and revision.
This edition includes Statement of Position 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*. In using this guide, readers should refer to the material in the Statement of Position (Appendix A).

AICPA AUDIT AND ACCOUNTING GUIDES

1211 AVENUE OF THE AMERICAS, NEW YORK, NEW YORK 10036-8775

AMERICAN INSTITUTE OF
CERTIFIED PUBLIC ACCOUNTANTS

Preface

This guide supersedes the AICPA industry audit guide, *Audits of Construction Contractors*, which was published in 1965 as a combination of an accounting guide and an auditing guide that the AICPA had published separately in 1959. Since its issuance, *Audits of Construction Contractors* has served as an authoritative guide for accounting, auditing, and financial reporting in the construction industry; within the industry, both issuers and users of financial statements use the guide as a manual.

However, since the guide was issued, the construction industry and the environment of business and financial reporting have changed substantially. The size, sophistication, and complexity of the industry have increased over the years, and the industry is still growing in each of these ways. Growth in the U.S. economy has produced changes in the forms and uses of contractual arrangements for the production and delivery of goods and services.

Changes in the business and financial reporting environments have increased the complexities of accounting for contracts and created the need for additional guidance in the application of generally accepted accounting principles and generally accepted auditing standards in the construction industry. For example, the increasing tendency of contractors to combine in a joint venture to perform an individual contract or series of contracts creates questions that need to be addressed and resolved.

Official pronouncements establishing generally accepted accounting principles and generally accepted auditing standards have been issued at an increasing rate. Since the original material included in *Audits of Construction Contractors* was prepared, all the opinions and statements of the AICPA Accounting Principles Board (APB) and the statements and interpretations of its successor body, the Financial Accounting Standards Board (FASB), have been issued. The AICPA's study group on the objectives of financial statements and the FASB have clarified and expanded the objectives of financial statements and financial reporting. The Securities and Exchange Commission (SEC) has issued numerous accounting series releases and staff accounting bulletins on financial accounting and reporting. The AICPA Accounting Standards Division has issued a number of recommendations. The AICPA Auditing Standards Board and its predecessors have issued numerous pronouncements that have significantly expanded the interpretations of generally accepted auditing standards. Those pronouncements affect in numerous ways financial reporting and auditing in the construction industry but are not covered in the 1965 guide.

This guide applies to financial reporting and auditing in the construction industry, although the guidance provided may be useful in other industries for companies whose business involves construction-type contracts. It has been prepared

- To provide background information on the nature and characteristics of the construction industry.
- To update the 1965 guide to cover all pertinent pronouncements to date of the APB, FASB, SEC, and other standard-setting bodies.
- To assist contractors in applying generally accepted accounting principles.
- To assist the independent auditor in applying generally accepted auditing standards and his knowledge of generally accepted account-

ing principles to his determination of whether generally accepted accounting principles have been applied by management, which has the primary responsibility for financial statements.

A statement of position, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*, was issued concurrently with this guide. The statement of position is included as an appendix to this document, and its recommendations on accounting for performance of construction-type contracts are an integral part of this guide.

Transition

An accounting change from the completed-contract method or from the percentage-of-completion method to conform to the recommendations of this guide should be made retroactively by restating the financial statements of prior periods. The restatement should be made on the basis of current information if historical information is not available. If the information for restatement of prior periods is not available on either a historical or current basis, financial statements and summaries should be restated for as many consecutive prior periods preceding the transition date of this guide as is practicable, and the cumulative effect on the retained earnings at the beginning of the earliest period restated (or at the beginning of the period in which the guide is first applied if it is not practicable to restate any prior periods) should be included in determining net income for that period (see paragraph 20 of APB Opinion No. 20, *Accounting Changes*).

Accounting changes to conform to the recommendations of this guide, other than those in the preceding paragraph, should be made prospectively for contracting transactions, new contracts, and contract revisions entered into on or after the effective date of this guide. The division recommends the application of the provisions of this guide for fiscal years, and interim periods in such fiscal years, beginning after June 30, 1981. Disclosures should be made in the financial statements in the period of change in accordance with paragraph 28 of APB Opinion No. 20.

TABLE OF CONTENTS

Chapter 1

Industry Background

1.01 One of the objectives of revising and updating the 1965 audit guide for construction contractors was to provide contractors, accountants, and users of financial statements with adequate background material on the nature of the industry, operations in the industry, and its terminology. For that purpose, this chapter describes and discusses the general characteristics of the industry, the operating features of companies in the industry, and the business environment in which they operate.

1.02 This chapter is intended as background for the presentation of recommendations and guidance on financial reporting and auditing in the industry. It does not contain recommendations or guidance on the technical application of generally accepted accounting or auditing standards. Recommendations and guidance on technical accounting and auditing issues are presented in the chapters that follow and in the statement of position, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* (the SOP).

Nature and Significance of the Industry

1.03 The construction industry consists of individuals and companies that are engaged in diverse types of activities defined as construction in the *Standard Industrial Classification Manual*. The 1977 census of construction industries, as reported in the *Statistical Abstract of the United States*—1979, classified construction establishments into general building contractors, heavy construction contractors (including highway and street construction), and fifteen different classes of specialty contractors (such as plumbing, heating, and air conditioning; electrical; roofing and sheet metal work). The data presented indicate that the construction industry is a significant factor in the U.S. economy. It represents billions of dollars of economic activity, consists of several hundred thousand business entities widely dispersed throughout the country, employs a large labor force, and contributes a relatively constant percentage (approximately 5 percent) to the gross national product.

1.04 Construction contractors may be distinguished by their size, the type of construction activity they undertake, and the nature and scope of their responsibility for a construction project. Although the construction industry also encompasses large, multinational contractors that undertake construction of billion-dollar projects, most business entities in the industry are small, local businesses whose activities are limited to a small geographical area. The large number of small entities in the industry may be attributed to the ease of entry into many phases of the construction industry and to the limited amount of capital required. The diverse types of business activities conducted by construction contractors include construction of buildings, highways, dams, and bridges; installation of machinery and equipment; dredging; and demolition. Many companies are able to meet the demands of large construction projects by combining their efforts in joint ventures.

1.05 A contractor may engage in those activities as a general contractor, a subcontractor, or a construction manager. A *general contractor* is a prime contractor who enters into a contract with the owner of a project for the construction of the project and who takes full responsibility for its completion, although he may enter into subcontracts with others for the performance of specific parts or phases of the project. A *subcontractor* is a second-level contractor who enters into a contract with a prime contractor to perform a specific part or phase of a construction project. A subcontractor's performance responsibility is to the general contractor, with whom the subcontractor's relationship is essentially the same as that of the prime contractor to the owner of the project. A *construction manager* is a contractor who enters into an agency contract with an owner of a construction project to supervise and coordinate the construction activity on the project, including negotiating contracts with others for all the construction work.

1.06 The organizational structure, resources, and capabilities of contractors tend to vary with the type of activity. Each type of contractor can pose different accounting and auditing problems.

Features of the Business Environment

1.07 Contractors operate in a business environment that differs in some respects from that of other types of businesses. The features of the business environment are discussed in this section in terms of characteristics common to contractors, types of contracts, bonding and surety underwriting, project ownership and rights of lien, contract changes, financing considerations, the use of joint ventures to accomplish objectives, and reporting for financial and income tax purposes.

Characteristics Common to Contractors

1.08 Although the construction industry is difficult to define because of its diversity, certain characteristics are common to companies in the industry. The most basic characteristic is that work is performed under contractual arrangements with customers. A contractor, regardless of the type of construction activity or the type of contractor, typically enters into an agreement with a customer to build or to make improvements on a tangible property to the customer's specification. The contract with the customer specifies the work to be performed, specifies the basis of determining the amount and terms of payment of the contract price, and generally requires total performance before the contractor's obligation is discharged. Unlike the work of many manufacturers, the construction activities of a contractor are usually performed at job sites owned by customers rather than at a central place of business, and each contract usually involves the production of a unique property rather than repetitive production of identical products.

1.09 Other characteristics common to contractors and significant to accountants and users of financial statements include the following:

- A contractor normally obtains the contracts that generate revenue or sales by bidding or negotiating for specific projects.
- A contractor bids for or negotiates the initial contract price based on an estimate of the cost to complete the project and the desired profit margin, although the initial price may be changed or renegotiated.
- A contractor may be exposed to significant risks in the performance of a contract, particularly a fixed-price contract.
- Customers frequently require a contractor to post a performance and a payment bond as protection against the contractor's failure to meet performance requirements.

- The costs and revenues of a contractor are typically accumulated and accounted for by individual contracts or contract commitments extending beyond one accounting period, which complicates the management, accounting, and auditing processes.

Types of Contracts

1.10 The nature of a contractor's risk exposure varies with the type of contract. The several types of contracts used in the construction industry are described and illustrated in Appendix B of the SOP. The four basic types of contracts used based on their pricing arrangements are fixed-price or lump-sum contracts, unit-price contracts, cost-type contracts, and time-and-materials contracts.

- A fixed-price or lump-sum contract provides for a single price for the total amount of work to be performed on a project.
- A unit-price contract provides that a contractor will perform a specific project at a fixed price per unit of output.
- A cost-type contract (including cost-plus) provides for reimbursement of allowable or otherwise defined costs incurred plus a fee for the contractor's services. Usually, the contract only requires that the contractor's best efforts be used to accomplish the scope of the work. Cost-type contracts take a variety of forms. The contracts often contain terms specifying reimbursable costs, overhead recovery percentages, and fees. The fee may be fixed or based on a percentage of reimbursable costs.
- A time-and-materials contract is similar to a cost-plus contract and generally provides for payments to the contractor on the basis of direct labor hours at fixed hourly rates (the rates cover the costs of indirect labor and indirect expenses and profit) and cost of materials or other specified costs.

1.11 All types of contracts may be modified by target penalties and incentives relating to factors such as completion dates, plant capacity on completion of the project, and underruns and overruns of estimated costs.

Bonding and the Surety Underwriting Process

1.12 Contractors bidding on or negotiating a contract may be required to make a deposit for the use of the plans and specifications for the project. Before they are allowed to submit bids, those seeking prime contracts may be required to post a bid security bond or make a deposit, usually in the form of a bank-guaranteed check, equal to a percentage of the total cost estimated in the feasibility study. On virtually all public work and on some private work, bid security is usually required to provide some assurance that only qualified, responsible contractors submit bids. In the construction industry, bid security bonds, as well as performance bonds and payment bonds, are provided by surety companies.

1.13 A bid bond issued by a surety does not guarantee that the contractor will sign a contract or guarantee that the surety will issue a performance bond. The contractor and surety promise the owner that if the contractor who is awarded the contract does not sign the contract or cannot provide a performance bond, the surety will pay, subject to the maximum bid bond penalty, the difference between the contractor's bid and the bid of the next lowest responsible bidder. The bid bond or deposit protects the owner from bidders without the resources necessary to complete the work and gives the owner a certain amount of indemnity against the cost of rebidding or finding another contractor who can complete the work. A surety required to pay on a defaulted bid has the right of recovery against the contractor's assets.

1.14 After being awarded a contract, a contractor may be required to post a performance bond, also issued by a surety. The performance bond provides protection against the contractor's failure to perform the contract in accordance with its terms. The surety's obligation under the bond terminates on satisfactory completion of the work required by the contract. However, if the contractor should fail to perform in accordance with the contract, the surety is obligated to the owner for losses but has recourse against the contractor's assets.

1.15 A payment, or labor-and-materials, bond is commonly provided by sureties as a companion to the performance bond. The protection provided by a payment bond is governed by state laws, which vary widely but generally cover the contractor's labor, subcontractors, and suppliers. The Miller Act of 1935 requires general contractors on federal government projects to post payment bonds to protect suppliers of labor, materials, and supplies to those projects.

1.16 In providing the various types of bonds required in the construction industry, the primary function of sureties is to prequalify the contractor. The surety examines the contracting entity to determine if it has the management, experience, equipment, and financing capability to get the job done. If, in the judgment of the surety, the contractor can perform the contract, the surety will provide the required bonds.

1.17 Surety underwriting is similar to, but different from, insurance. Insurance involves a two-party agreement in which a premium is paid to protect an insured party from the risk of certain types of losses. In contrast, a surety bond involves a three-party agreement in which the surety and the contractor join together to provide protection against losses to a third party. Surety underwriting is also similar to extending credit. For a fee, the surety provides a guarantee to third parties that the contractor will fulfill obligations of performance and payment. Just as a banker will not knowingly make a loan without satisfying himself regarding a borrower's ability to repay the loan in accordance with its terms, a surety will not knowingly issue a surety bond without similar knowledge of the contractor's ability to meet obligations in accordance with the terms of a contract.

Project Ownership and Rights of Lien

1.18 A contractor may be required to make a significant commitment of resources to a project under construction. His ability to recover his investment may be impaired by certain peculiar considerations. The project is ordinarily one of a kind and is built on the owner's site. The owner has title to the real estate as well as all improvements as the contractor provides them. The contractor acquires materials for specific projects and has no direct ownership claims to the work in progress. Subassemblies fabricated on the contractor's premises usually have little value to him because of the uniqueness of the project.

1.19 As a special remedy for these conditions, the laws of most states protect providers of labor and materials, such as contractors, from the failure of the owner to pay by granting a right of lien. Under a right of lien, contractors have a claim against the real property, although that right is not necessarily senior to other claims, such as the rights of mortgage holders. Since lien rights are lost if they are not perfected within a limited time period, contractors ordinarily have an established procedure for filing claims before the expiration of those rights. Federal government property ordinarily is not subject to lien under state law, but suppliers, other than general contractors, of labor and material for such property are normally protected by payment bonds that the general contractor is required to post under the Miller Act of 1935.

Contract Changes

1.20 Management control of change orders, claims, extras, and back charges is of critical significance in construction activity. Modifications of the original contract frequently result from change orders that may be initiated by either the customer or the contractor. The nature of the construction industry, particularly the complexity of some types of projects, is conducive to disputes between the parties that may give rise to claims or back charges. Claims may also arise from unapproved change orders. In addition, customer representatives at a job site sometimes authorize the contractor to do work beyond contract specifications, and this gives rise to claims for "extras." The ultimate profitability of a contract often depends on control, documentation, and collection of amounts arising from such items.

Financing Considerations

1.21 The methods of financing operations in the construction industry have developed in response to the nature of the industry and the business environment in which it functions. The cost and availability of financing are affected by the risks to which contractors are susceptible. The greatest risk factor in the industry stems from the method of pricing. A contractor, unlike a businessman in most other industries, must set his prices in the bidding or negotiating process before product costs are absolutely determined; and the prices, particularly for fixed-price contracts, are not necessarily subject to modifications solely because of changes in costs.

1.22 Accumulated equity is rarely used in the construction industry to finance construction projects in progress because the industry contains so many relatively small nonpublic entities.

1.23 A contractor's greatest financing need is working capital. Term loans to support working capital needs are rare because expansion can usually be supported by working capital loans on a contract-by-contract basis. Banks and other credit grantors typically require more tangible types of security for term loans than most contractors can furnish. However, contractors use chattel loans, which may be tailored to match payments with cash receipts, such as by a waiver of payments during off-season periods, to finance equipment purchases.

1.24 Although a traditional line of credit is seldom extended to a contractor, a working capital line of credit on specific contracts is often available. Working capital loans are usually advanced on a contract as needed to pay for materials, labor, and subcontract costs. Such loans are a necessary means of financing for most contracts because of the lag between expenditures and the receipt of cash. The credit grantor may take an assignment of the contract and the related receivables; however, a bonding company, if one is involved, has rights to the receivables that take precedence over those of other creditors, including a secured lender. Credit grantors often require that the proceeds of contracts be assigned to them and may also require that the proceeds of the loan be paid directly to suppliers as invoices are submitted.

1.25 Contractors may qualify for government-sponsored programs that support or guarantee financing for small or minority-owned businesses. The programs generally guarantee lines of credit on a contract-by-contract basis. Those programs, under which the contract proceeds are usually assigned to the creditor, are ordinarily available only to contractors that would not qualify for working capital loans from banks without some form of government guarantee.

1.26 Some contractors finance bid deposits with temporary bank loans that are usually repaid by the return of the bid check. Since a bank-guaranteed check used as a bid deposit can be forfeited if a contractor who is awarded a contract cannot obtain the required bonding or withdraws from the contract, a contractor usually obtains a commitment for the required bonding before bidding on a project.

1.27 Billing practices in the industry have evolved from the need to generate cash flows in order to finance the progress of construction projects. In contrast to manufacturing companies, whose billing practices are fairly standard, with the customer billed on shipment of the goods, billing practices in the construction industry vary widely and are often not correlated with the performance of the work. Billing arrangements are usually specified in the contract and vary with the different types of contracts used in the industry. The amount and timing of billings under contract may be based, for example, on such measures as

- Completion of certain stages of the work.
- Costs incurred on cost-plus contracts.
- Architects' or engineers' estimates of completion.
- Specified time schedules.
- Quantity measures of unit price contracts, such as cubic yards excavated.

1.28 In any event, progress billings or customer advances on contracts provide a significant source of financing for most construction contractors. Most contracts, however, call for retention by the owner of a specified amount of each progress billing, often 10 percent, until the job reaches an agreed-on state of completion, with a provision for a reduction thereafter. The purpose of retentions is to ensure performance of the work in accordance with acceptable quality standards or to protect the owner against the cost of obtaining another contractor if a contractor fails to complete the work.

1.29 A contractor ordinarily will try to assign a higher relative bid price to job components that he expects to complete early in the job. The practice of unbalanced bidding, which is referred to as "front-end loading," accelerates the contractor's cash receipts on a contract and represents a significant financing strategy for many contractors.

1.30 Front-end loading and other types of unbalanced bidding are often viewed with concern by those not familiar with the industry, but they are common practices that contractors use to assist in financing of jobs. Money management is a vital part of construction management, and unbalanced bidding is one of the key tools. Negotiation of advantageous cash payment terms at the bidding stage and other procedures to accelerate cash collection are significant financing considerations in the industry. However, the contractor needs to be aware that, as a result of unbalanced bidding, cash inflows at the end of the contract may be less than cash requirements. Therefore, appropriate controls and cash budgeting are an essential part of financial management. An increasing number of credit grantors are requiring contractors to furnish cash projections on contracts before they will extend credit.

Joint Ventures

1.31 Contractors frequently participate in joint ventures with other parties on construction projects to share risks, to combine the financial and other resources and talents of the participants, or to obtain financing or bonding. In the construction industry, joint ventures often include arrangements for pooling equipment, bonding, and financing and for sharing skills such as engineering, design, and construction.

1.32 A joint venture is a business entity owned and operated by a small group of businesses (the "joint venturers") as a separate and specific business or project for the mutual benefit of members of the group. In the construction industry, ownership of joint ventures may take several forms. The most common are corporate joint ventures and partnerships.

1.33 A joint venture is operated by one or more of its owners, but all owners participate either directly or indirectly in its management. The rights and obligations of each joint venturer, the scope of the joint venture's operations, and the method of sharing profits or losses of the joint venture are typically set forth in the joint venture agreement. Profits and losses are shared in a variety of ways and may not be related to the method of sharing management or other responsibilities. Accomplishing objectives through joint ventures is often a significant business strategy for construction contractors, and management control of such activity can have a significant effect on the contractors' operations.

Reporting for Financial and Income Tax Purposes

1.34 Because of the large number of small enterprises in the construction industry, construction contractors' financial statements are used most frequently for credit and bonding purposes. Such a use is often accompanied by a request for supplemental information, including a job-by-job analysis of the recognized gross profit allocated between reporting periods. Recognition of revenues for these financial presentations is governed by accounting conventions described elsewhere in this guide and the statement of position (Appendix A).

1.35 On the other hand, business realities demonstrate that the gross profit is not certain, nor irrevocably earned, until the contract is actually completed and accepted. In addition, final collection, particularly of retentions, usually takes place some time after the earning process that is recognized in the financial statements.

1.36 Many contractors adopt income tax reporting practices that are sensitive to the uncertainties of the estimating process and that more nearly relate to the timing of cash receipts and disbursements. This usually means the adoption of methods that defer income recognition until contracts are completed or the use of the modified accrual basis, which reports retentions only when received, or the use of the cash basis.

Typical Industry Operations

1.37 Since the industry consists of diverse types of entities engaged in various types of work that may change over time, users of the guide need to understand not only the industry but also the operation of the individual entity with which they are concerned. For that reason, a description of the process of obtaining and initiating a project is useful to identify unusual conditions that require special consideration in preparing, auditing, or using the financial statements of a particular construction contractor.

Preparing Cost Estimates and Bids

1.38 The process leading to the preparation of estimates and bids on a project usually is initiated by the entity that engages a construction contractor for a project. When a customer, usually referred to as an owner, decides to construct a new facility, an architect or engineer may be engaged to prepare preliminary plans and cost estimates for the project. If preliminary procedures indicate the project is feasible, plans and specifications are prepared in sufficient detail for the preparation of cost estimates.

1.39 The owner may negotiate for a price with several general contracting firms or may advertise for bids. Bidders may be limited to those who can meet specified prequalification standards regarding financial capacity, experience, and availability of specialized equipment and who can furnish a bid, payment, or performance bond or all three types of bonds. The owner may decide to use one contractor as a prime contractor responsible for all phases of the work or to grant separate prime contracts for certain specialized portions of the work, such as electrical work, mechanical work, special equipment, and elevators.

1.40 Before tendering a bid, the contractor's estimating department prepares a cost estimate by examining the plans and specifications to determine the quantities of materials, the hours of various labor classifications, and the type and hours of use of the equipment necessary to perform the work. Quantity surveys, or takeoffs of the quantities of materials required for the job, prepared by the design firm or an independent agency, are often available for the contractor to use as a check on his own estimating department.

1.41 The equipment demands of a contract affect a contractor's bidding, projected need for funds, and financing strategy. Some types of construction require extensive use of costly equipment, and contractors are faced with decisions to buy or lease the equipment. Such decisions are often complicated because equipment may be acquired and tailored for use on a specific job and because the contractor may not be able to use the equipment on other jobs.

1.42 Phases of the job (such as excavating, erecting steel, and roofing) not done directly by the contractor are offered to various trade or specialty subcontractors, who in turn prepare bids to the prime contractor for their portions of the work. Each phase of the work may be bid on by more than one subcontractor, who may submit bids to more than one prime contractor. In dealing with different prime contractors, a subcontractor may vary the amount of the bids according to his assessment of his past experience with each contractor in terms of payment policies, quality of supervision and job coordination, and negotiating pressures.

1.43 Once the estimated cost of the work is determined, the contractor determines the amount by which the estimated cost will be marked up. The markup may vary between elements of the work, such as labor, material, subcontractor costs, or equipment. In determining how much the bid will be marked up over cost, the contractor ordinarily evaluates several factors including, but not limited to, the following:

- The complexities of the job.
- The volatility of the labor and materials markets.
- The contractor's experience or lack of it in doing the kind of work involved.
- The reputation of the design agency for reliability and completeness of plans.
- The season and weather.
- The predicted working relationship with the owner.
- The probability of opportunities to negotiate profitable changes to the contract.
- The alternate construction methods or specifications included in the bid request.
- The competition and the market.
- The incentive or penalty provisions of the contract.
- The anticipated cash flow characteristics of the job.

- Other peculiar risk conditions, including warranty requirements.

1.44 After determining the total bid price, the contractor should estimate the timing of disbursements for the job and the cash resources available to determine the allocation of the contract price among the progress billing points called for in the contract.

Entering into the Contract

1.45 The owner evaluates the bids received and may choose to sign a contract with the low bidder or to negotiate further, depending on the terms of the invitation to bid, statutes governing the bidding process of either public or private bodies, and other possible considerations. Submitted bids may be a matter of public record, and the bids of other contractors can provide a valuable, independent check on the accuracy of the contractor's estimating department. At some stage, an agreement is reached between the owner and the contractor that enables the contractor to proceed with the work. The formal signing of a contract is usually not a specific point before which all effort is selling and after which all effort is construction. Negotiation is likely to continue during the entire cycle; the signed contract represents the basic understandings and undertakings of both parties, but many contract modifications, not necessarily in writing, may be made during the progress of the job. A given situation can be covered by different types of contracts, and the risks and concerns may be different for each contract type.

Planning and Initiating the Project

1.46 Before construction begins, the contractor usually moves equipment to the job site, erects a temporary field office, and installs temporary utilities. The purchasing department proceeds with the selection of material suppliers and subcontractors and converts their bids to written contracts or purchase orders. The authority and responsibility for the performance of the work on a project usually rest on one individual known as the project manager.

1.47 The management organization of construction contracting companies varies considerably, depending on the size of the contractor, the complexity of the projects performed, and other factors. In some companies, the person responsible for bidding a contract is also responsible for the performance of the job. This sometimes means that there is no separation of functions among selling, pricing, and production and that the company is a conglomerate of small profit centers sharing, perhaps, a pool of equipment and an administrative staff. In other companies, a separate department is responsible for selecting jobs to estimate, preparing bids, and executing contracts. When the company obtains a contract for a project, a member of the production staff is assigned the responsibility as project manager. Before accepting responsibility for the profit on the project, the project manager often prepares a schedule and budget that may include a complete reestimate of the cost of the job. This procedure provides an additional element of control and allows the contractor to fix the responsibility for profit on a contract.

1.48 The cost reporting system for the job is usually established at about the time the work begins. The coding system may be standard throughout the company or redesigned for each individual job, but it should conform closely to the cost categories established in the original estimate or to the categories developed in the production plan, if one is prepared. A production plan or budget that is costed out in detail is helpful because it enables the contractor to compare costs by categories to the cost standards set before beginning the work.

1.49 On most construction projects, the major construction activity is carried out at the job site. The size and location of some projects make it necessary for a contractor to establish an administrative office at the job site and to conduct most control and accounting functions from that office.

Variations in Size and Methods of Operation

1.50 The preceding discussion of operations is typical of a medium-sized general contractor with a small number of significant contracts; it illustrates the importance of planning, bidding, and estimating. Construction activity, however, involves all types and sizes of contractors, and the management and operations of a contractor vary with the size and type of contractor. Many contractors have a mix of jobs that includes a few large jobs and many small jobs, including fixed-price and cost-plus contracts. Service-type contractors seldom are involved in bidding for contracts. Most of their small contracts originate as service calls, and many of their large contracts result from service calls and are negotiated rather than bid.

Project Management

1.51 The quality of management is a key determinant of the success or failure of a contractor. The management objective is to develop and maintain the ability to produce reasonable and competitive cost estimates on contracts and to complete the work required by the contracts within those cost estimates. Since success is determined by the results on contracts, many contractors project the effects that every transaction and event will have at the completion of the contract and use fluctuations of the final estimated profit as the stimulus for management action. Project management requires all the functions involved in planning, acquiring, controlling, and performing a project. All the following functions are involved:

- Resource planning
- Project start-up
- Estimating
- Scheduling
- Project administration
- Technical performance
- Procurement and material planning
- Labor planning and control
- Subcontractor management
- Support equipment and facilities
- Project accounting
- Project management reporting
- Operations analysis

Although some of these functions overlap, all are performed on every project undertaken by a contractor, even though the specific functions may not be identified. A large contractor may assign each function to a separate department, whereas a small contractor may assign two or three people responsibility for all the functions, or may engage parties outside the organization to perform some of the functions on a consulting basis.

Chapter 2

Accounting for Performance of Construction-Type Contracts

2.01 The accounting section provides guidance on the application of generally accepted accounting principles to financial accounting and reporting in the construction industry. This chapter covers accounting for performance of construction-type contracts. Chapters 3 to 6 respectively cover joint ventures, reporting by affiliated entities, interperiod tax allocation, and financial statement presentation.

2.02 Published concurrently with the original issue of this guide was a statement of position, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*, that sets forth recommendations on accounting for construction-type and certain production-type contracts in all industries. The SOP (Appendix A) is an integral part of this guide. For convenience, the major recommendations on accounting for construction-type contracts are summarized in this section of the guide. However, users of the guide should refer to the statement of position for the details of those recommendations and for the underlying reasoning.

2.03 Contracts covered are construction-type contracts, as defined in paragraphs 11 to 17 of the statement of position. The classification of contracts, the definition of a contractor, and the concept of a profit center contained in those paragraphs also apply to the discussion in this guide.

Basic Accounting Policy for Contracts

2.04 As set forth in the SOP, the choice between the two generally accepted methods of accounting for contracts is the basic accounting policy decision for construction contractors. The circumstances in which the percentage-of-completion and the completed-contract methods are deemed to be preferable are set forth in the SOP and are summarized in this section.

Percentage-of-Completion Method

2.05 The SOP recommends the percentage-of-completion method as preferable when estimates are reasonably dependable and the following conditions exist:

- Contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
- The buyer can be expected to satisfy his obligations under the contract.
- The contractor can be expected to perform his contractual obligations.

2.06 The SOP states a presumption that contractors generally have the ability to produce estimates that are sufficiently dependable to justify the use of the percentage-of-completion method of accounting. It also states that persuasive evidence to the contrary is necessary to overcome that presumption. Paragraph 25 of the SOP recommends that the percentage-of-completion method applied to individual contracts or profit centers, as appropriate, on one or more of the following bases is preferable.

a. Normally, a contractor will be able to estimate total contract revenue and total contract cost in single amounts. Those amounts should normally be used as the basis for accounting for contracts under the percentage-of-completion method.

b. For some contracts, on which some level of profit is assured, a contractor may only be able to estimate total contract revenue and total contract cost in ranges of amounts. If, based on the information arising in estimating the ranges of amounts and all other pertinent data, the contractor can determine the amounts in the ranges that are most likely to occur, those amounts should be used in accounting for the contract under the percentage-of-completion method. If the most likely amounts cannot be determined, the lowest probable level of profit in the range should be used in accounting for the contract until the results can be estimated more precisely.

c. However, in some circumstances, estimating the final outcome may be impractical except to assure that no loss will be incurred. In those circumstances, a contractor should use a zero estimate of profit; equal amounts of revenue and cost should be recognized until results can be estimated more precisely. A contractor should use this basis only if the bases in (a) or (b) are clearly not appropriate. A change from a zero estimate of profit to a more precise estimate should be accounted for as a change in an accounting estimate.

An entity using the percentage-of-completion method as its basic accounting policy should use the completed-contract method for a single contract or a group of contracts for which reasonably dependable estimates cannot be made or for which inherent hazards make estimates doubtful. Such a departure from the basic policy should be disclosed.

Completed-Contract Method

2.07 The SOP (paragraphs 30 to 33) recommends the use of the completed-contract method of accounting only in the following circumstances:

- If financial position and results of operations reported on that basis would not vary materially from those that would result from the percentage-of-completion method, for example, in circumstances in which a contractor has primarily short-term contracts.
- If estimates cannot meet the criteria for reasonable dependability on the basis of estimates in terms of single amounts, in terms of ranges of amounts, or in terms of a zero profit or if there are inherent hazards of the nature of those discussed in paragraphs 26 to 29 of the SOP.

Paragraph 52 of the SOP sets forth recommendations on procedures for determining when a contract is substantially completed under the completed-contract method.

Determining the Profit Center

2.08 In accordance with the SOP, each individual contract is presumed to be the profit center for revenue recognition, cost accumulation, and income measurement unless the contract meets the criteria in the SOP (paragraphs 35 to 42) for combining or segmenting.

Measuring the Extent of Progress Toward Completion

2.09 As set forth in the SOP (paragraphs 43 to 51), the various methods used in practice to determine extent of progress toward completion, such as the cost-to-cost method, efforts-expended method, and units-of-work-performed method, conform to paragraph 4 of Accounting Research Bulletin (ARB) No. 45. The objective of all the methods used in practice is to measure the extent of progress in terms of costs, units produced, contract milestones, or value added; however, a particular method may or may not achieve that result, depending on the circumstances of use and the manner in which it is applied.

2.10 The various measures are identified and classified in the SOP as input and output measures. Input measures are in terms of efforts devoted to a contract; output measures are in terms of results. Both types of measures have drawbacks in some circumstances, and their use requires the exercise of judgment and careful application to circumstances. The results obtained should be evaluated periodically by physical observation by qualified personnel.

Income Determination—Revenue

2.11 The factors and the recommended procedures (paragraphs 53 to 67 of the SOP) for estimating, measuring, and accounting for contract revenue include (*a*) the nature of the contract and the basic contract price or pricing formula, (*b*) contract options and additions, (*c*) change orders, (*d*) claims, and (*e*) contract provisions for penalty and incentive payments. To estimate and measure total contract revenue for the purpose of determining the amount of income earned, a contractor should follow the recommendations in the SOP in evaluating all those factors periodically throughout the life of the contract.

Income Determination—Cost Elements

2.12 Maintaining a reasonable degree of accuracy in identifying, estimating, and accumulating contract costs is essential in determining the amount of income earned. Although the systems and procedures used to account for cost are diverse, the objective of each system or each set of procedures should be to accumulate costs consistently by contract.

Accounting for Contract Costs

2.13 The SOP (paragraph 72) provides the following:

a. All direct costs, such as material, labor, and subcontracting costs, should be included in contract costs.

b. Indirect costs allocable to contracts include the costs of indirect labor, contract supervision, tools and equipment, supplies, quality control and inspection, insurance, repairs and maintenance, depreciation and amortization, and, in some circumstances, support costs, such as central preparation and processing of payrolls. For government contractors, other types of costs that are allowable or allocable under pertinent government contract regulations may be allocated to contracts as indirect costs if otherwise allowable under GAAP. Methods of allocating indirect costs should be systematic and rational. They include, for example, allocations based on direct labor costs, direct labor hours, or a combination of direct labor and material costs. The appropriateness of allocations of indirect costs and of the methods of allocation depend on the circumstances and involve judgment.

c. General and administrative costs ordinarily should be charged to expense as incurred but may be accounted for as contract costs under the completed-contract method of accounting or, in some circumstances, as indirect contract costs by government contractors.

d. Selling costs should be excluded from contract costs and charged to expense as incurred unless they meet the criteria for precontract costs in paragraph 75.

e. Costs under cost-type contracts should be charged to contract costs in conformity with generally accepted accounting principles in the same manner as costs under other types of contracts because unrealistic profit margins may result in circumstances in which reimbursable cost accumulations omit substantial contract costs (with a resulting larger fee) or include substantial unallocable general and administrative costs (with a resulting smaller fee).

f. In computing estimated gross profit or providing for losses on contracts, estimates of cost to complete should reflect all of the types of costs included in contract costs.

g. Inventoriable costs should not be carried at amounts that when added to the estimated cost to complete are greater than the estimated realizable value of the related contracts.

Precontract Costs

2.14 The following recommendations from paragraph 75 of the SOP apply to precontract costs:

a. Costs that are incurred for a specific anticipated contract and that will result in no future benefits unless the contract is obtained should not be included in contract costs or inventory before the receipt of the contract. However, such costs may be otherwise deferred, subject to evaluation of their probable recoverability, but only if the costs can be directly associated with a specific anticipated contract and if their recoverability from the contract is probable.

b. Costs incurred for assets, such as costs for the purchase of materials, production equipment, or supplies, that are expected to be used in connection with anticipated contracts may be deferred outside the contract cost or inventory classification if their recovery from future contract revenue or from other dispositions of the assets is probable.

c. Costs incurred to acquire or produce goods in excess of the amounts required for an existing contract in anticipation of future orders for the same items may be treated as inventory if their recovery is probable.

d. Learning or start-up costs incurred in connection with existing contracts and in anticipation of follow-on or future contracts for the same goods or services should be charged to existing contracts.

e. Costs appropriately deferred in anticipation of a contract should be included in contract costs on the receipt of the anticipated contract.

f. Costs related to anticipated contracts that are charged to expenses as incurred because their recovery is not considered probable should not be reinstated by a credit to income on the subsequent receipt of the contract.

Cost Adjustments for Back Charges

2.15 *Back charges* are billings for work performed or costs incurred by one party that should have been performed or incurred by another. In practice, such charges are sometimes not recorded as receivables or payables.

2.16 The SOP (paragraph 77) provides the following recommendations on accounting for such charges:

- Back charges to others should be recorded as receivables and, to the extent considered collectible, should be applied to reduce contract costs.

However, if the billed party disputes the propriety or amount of the charge, the back charge is in effect a claim, and the criteria for recording claims apply.

- Back charges from others should be recorded as payables and as additional contract costs to the extent that it is probable that the amounts will be paid.

Estimated Cost to Complete

2.17 Estimated cost to complete should be determined in accordance with the following recommendations from the SOP (paragraph 78):

a. Systematic and consistent procedures that are correlated with the cost accounting system should be used to provide a basis for periodically comparing actual and estimated costs.

b. In estimating total contract costs, the quantities and prices of all significant elements of cost should be identified.

c. The estimating procedures should provide that estimated cost to complete includes the same elements of cost that are included in actual accumulated costs; also, those elements should reflect expected price increases.

d. The effects of future wage and price escalations should be taken into account in cost estimates, especially when the contract performance will be carried out over a significant period of time. Escalation provisions should not be blanket overall provisions but should cover labor, materials, and indirect costs based on percentages or amounts that take into consideration experience and other pertinent data.

e. Estimates of cost to complete should be reviewed periodically and revised as appropriate to reflect new information.

Computation of Earned Income

2.18 The SOP (paragraphs 80 and 81) and Appendix C set forth and illustrate procedures for determining earned income for a period under the percentage-of-completion method.

Revised Estimates

2.19 Revisions in cost and profit estimates or in estimates of the percentage of completion are changes in accounting estimates and should be accounted for and disclosed in accordance with APB Opinion No. 20, *Accounting Changes*, and the recommended accounting in paragraphs 82 to 84 of the SOP.

Provisions for Anticipated Losses on Contracts

2.20 The following summarizes the recommended accounting for provisions for anticipated losses on contracts contained in paragraphs 85 to 89 of the SOP.

- A provision for losses on a contract should be made as soon as the losses become evident, regardless of the method of accounting for the contract.
- The provision should be computed on the basis of the total estimated cost to complete the contract and should reflect all elements of costs included in contract costs under paragraph 72 of the SOP.
- The provision should be shown separately as a liability on the balance sheet or as a deduction from any related accumulated costs.

- The loss should be included in the income statement as an element of contract costs rather than as a reduction of contract revenue.

Selecting a Measure of Extent of Progress

2.21 A good measure of extent of progress toward completion should give weight to all elements of a contractor's work and should consider the broad phases of a contractor's operation, such as

- Designing the project (preparing blueprints to meet the owner's specifications).
- Obtaining the necessary labor, materials, supplies, and equipment and mobilizing them at the construction site. (See paragraph 50 of the SOP for a discussion of uninstalled materials under the cost-to-cost method of measuring the extent of progress.)
- Managing the resources to complete the project.
- Demobilizing the resources from the construction site.

Costs of Equipment and Small Tools

2.22 In establishing operating unit costs for construction equipment, contractors may apply rates arrived at under the so-called use rate theory. In applying this theory, the following factors should be considered: (1) the cost of the equipment, less estimates of its salvage value or rental if it is leased, (2) the probable life of the equipment, (3) the average idle time during the life or period of hire of the equipment, and (4) the costs of operating the equipment, such as repairs, storage, insurance, and taxes. A rate may be arrived at, which, based on the reported use of the equipment, will serve as a basis for charging the contracts on which the equipment is used. The cost of a contractor's equipment should be allocated to the particular contract on which it is used on a reasonable basis, such as time, hours of use, or mileage.

2.23 In determining a suitable indirect cost allocation method for equipment, questions arise relating to accounting for equipment charges when a contractor's equipment is idle during a winter season, or to the propriety of allocating idle equipment costs to jobs. Practice supports the allocation of idle equipment costs to contracts by use of rates geared to cover all costs. That procedure results in rates that lessors of the same type of equipment charge users in the same location, except for the profit element.

2.24 Small tools should be charged to a contract as they are consumed in performance of the contract. Operating and maintenance costs of miscellaneous small tools and equipment are usually charged to overhead accounts rather than specific contracts. However, a contractor may charge the costs directly to specific contracts if they relate to specific contracts. As a practical matter, small tools can frequently be charged to contracts when purchased for the contracts or when issued from a central pool. Contract costs should be credited with estimated salvage value of small tools remaining at completion of the contracts.

2.25 If small tools are significant, they can be accounted for in inventory accounts or in fixed assets accounts. Removals from inventory can be accounted for by specific contract, or inventory reductions can be charged to overhead and spread over jobs on an equitable basis. Depreciation of small tools carried in fixed assets can likewise be charged to overhead or to specific contracts.

Chapter 3

Accounting for and Reporting Investments in Construction Joint Ventures

3.01 As noted in chapter 1, contractors frequently participate in construction joint ventures with other parties to share risks, to combine financial and other resources, or to obtain financing or bonding. Entities described as construction joint ventures vary in their legal forms. They include corporations, general and limited partnerships, and undivided interests. The entities, which are usually project oriented, are often viewed as joint ventures even though one of the investors may have a majority voting interest or may otherwise have effective control of the entity. Since this chapter presents guidance on accounting for investments in entities described as construction joint ventures, questions relating to the existence of control are also addressed.[1]

Accounting for Transactions With the Venture

Capital Contributions

3.02 Cash capital contributions to a venture by a venturer should be recorded by the venturer as an investment in the amount of the cash contributed. As a general rule, the contribution of other assets should be recorded as an investment equal to the contributed asset's net book value on the venturer's books. That basis should be used regardless of the nature of the interest in the venture obtained from the transaction. Such a contribution is a nonmonetary transaction that does not represent the culmination of an earning process as discussed in APB Opinion No. 29, *Accounting for Nonmonetary Transactions.*

3.03 However, a noncash contribution may be accompanied by a cash withdrawal by the contributing venturer. The receipt of cash may represent monetary consideration on which the venturer should recognize profit, in accordance with APB Opinion No. 29, to the extent of the other venturers' proportionate interests.

3.04 The following illustrates a transaction in which the contributing venturer should recognize profit:

> A and B are to share equally in a new joint venture. A contributes $100,000 in cash and B contributes equipment with carrying value to him of $140,000. To equalize the contributions, A and B agree that B will withdraw $100,000 from the venture. The conditions required for proportionate profit recognition by B are present.

Results

1. The transaction indicates that the equipment has a fair value of $200,000.

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[1] The recommendations in this chapter are intended to conform existing accounting practice for investments in all types of construction industry joint ventures to the requirements in APB Opinion No. 18, *The Equity Method of Accounting for Investments in Common Stock*, relating to corporate joint ventures. The accounting standards division has prepared, and presented to the Financial Accounting Standards Board for its consideration, an issues paper on joint venture accounting. The paper explores issues relating to accounting for investments in joint ventures and urges the board to reexamine the requirements of APB Opinion No. 18 relating to corporate joint ventures and to consider a comprehensive pronouncement on accounting issues related to joint ventures.

2. B now effectively owns a 50 percent interest in the equipment.
3. B therefore has effectively sold a 50 percent interest in the equipment to A for $100,000 and should recognize a gain before income taxes of $30,000, that is, $100,000 - (1/2 × $140,000).
4. B should recognize an additional $30,000 as a gain as the venture depreciates the equipment. The venture would initially record the equipment on its books at its indicated fair value of $200,000.

3.05 A venturer may contribute assets to a venture and obtain an interest in the venture smaller than the carrying amount of contributed assets, based on the relationship of the carrying amount of the asset to the cash contributed by the other venturers. In those circumstances, the transaction might provide evidence that the cost or carrying amount of the contributed assets is greater than their fair value, and that a loss should be recognized. Under the general principle that all losses should be recognized when they become evident, an indicated loss should be recognized by the venturer, with a corresponding reduction in the carrying amount of its investment in the venture.

3.06 The following is an illustration of a transaction in which a venturer should recognize a loss:

> A and B are to share equally in a new joint venture. A contributes $100,000 in cash and B contributes equipment with a carrying value to him of $140,000.

Results

1. The transaction indicates that the equipment has a fair value of $100,000 (the amount of A's contribution).
2. B should recognize a loss of $40,000 and record its investment in the venture at $100,000.

3.07 A venturer may obtain an interest in a venture by contributing service or "know-how." If the services are to be provided in the future, the cost should not be assigned to the investment account until the services are performed. Recognition of the venturer's share of the profits on withdrawals received before the performance of the services should be deferred until the services are performed and the earning process is complete.

Sales to a Venture

3.08 Sales of materials, supplies, or services to a venture by a venturer that controls the venture, through majority voting interest or otherwise, generally should not be viewed as arm's length transactions. The venturer should not recognize as income any of the intercompany profit or loss from such transactions until it has been realized through transactions with outside third parties.

3.09 An AICPA accounting interpretation of APB Opinion No. 18 states the following:

> When an investor controls an investee through majority voting interest and enters into a transaction which is not on an "arm's length" basis, none of the intercompany profit or loss from the transaction should be recognized in income by the investor until it has been realized through transactions with third parties. The same treatment also applies for an investee established with the cooperation of an investor (including an investee established for the financing and operation or leasing of property sold to the investee by the investor) when control is exercised through guarantees of indebtedness, extension of credit and other special arrangements by the investor for the benefit of the investee, or because of ownership by the investor of warrants, convertible securities, etc. issued by the investee.

3.10 However, a transaction may be deemed to be on an "arm's length" basis, and a controlling venturer may recognize profit to the extent of other interests in the venture if the following conditions are met:

1. The transaction was entered into at a price determinable on an arm's length basis; that is, fair value can be measured by comparable sales at normal selling prices to independent third parties or by competitive bids.
2. There are no substantial uncertainties regarding the venturer's ability to perform, such as those that may be present if the venturer lacks experience in the business of the venture, or regarding the total cost of the services to be rendered.
3. The venture is creditworthy and has independent financial substance.

3.11 A venturer that does not control the venture should recognize intercompany profit to the extent of other interests in the venture.

3.12 For nonmonetary transactions, profit should be recognized in accordance with APB Opinion No. 29.

Presentation Practices in Reporting Investments in Ventures

3.13 At least five different methods of presenting a venturer's interest in a venture are followed in present practice:

1. *Consolidation.* The venture is fully consolidated, with the other venturers' interests shown as minority interests.
2. *Partial or proportionate consolidation.* The venturer records its proportionate interest in the venture's assets, liabilities, revenues, and expenses on a line-by-line basis and combines the amounts directly with its own assets, liabilities, revenues, and expenses without distinguishing between the amounts related to the venture and those held directly by the venturer.
3. *Expanded equity method.* The venturer presents its proportionate share of the venture's assets and liabilities in capsule form, segregated between current and noncurrent. The elements of the investment are presented separately by including the venturer's equity in the venture's corresponding items under current assets, current liabilities, noncurrent assets, noncurrent liabilities, revenues, and expenses, using a caption such as "investor's share of net current assets of joint ventures."
4. *Equity method.* The equity method is the traditional one-line method prescribed by APB Opinion No. 18 for investments in corporate joint ventures and for investments in common stock that represent less than a majority interest but that evidence an ability to exercise significant influence over the investee.
5. *Cost.* The investment is recorded at cost, and income is recognized as distributions are received from earnings accumulated by the venture since the date of acquisition by the venturer.

3.14 The extent of the use of those methods varies; however, they have all been used in, or have been considered acceptable for use in, accounting for investments in joint ventures in the construction industry. Combinations of those methods have also been used in the construction industry. For example, a common combination is to use the one-line equity method in the balance sheet and the proportionate consolidation method in the income statement.

Recommended Financial Statement Presentation Practices

Corporate Ventures

3.15 APB Opinion No. 18 requires investments in corporate joint ventures to be accounted for by the equity method and includes guidance for applying that method in the financial statements of the investor.

3.16 Paragraph 3 of APB Opinion No. 18 states, "An entity which is a subsidiary of one of the 'joint venturers' is not a corporate joint venture." A subsidiary, according to that opinion, is

> . . . a corporation which is controlled, directly or indirectly, by another corporation. The usual condition for control is ownership of a majority (over 50%) of the outstanding voting stock. The power to control may also exist with a lesser percentage of ownership, for example, by contract, lease, agreement with other stockholders or by court decree.

3.17 Accordingly, a controlling venturer should account for an ownership interest in excess of 50 percent in a corporate venture under principles of accounting applicable to investments in subsidiaries, in accordance with Accounting Research Bulletin (ARB) No. 51, *Consolidated Financial Statements*. Exceptions to consolidation should be based on the examples in ARB No. 51. Minority shareholders in such a corporation should account for their investment using the principles applicable to investments in common stock in APB Opinion No. 18 or in FASB Statement No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, as appropriate.

General Partnerships

3.18 In December 1971 the staff of the American Institute of Certified Public Accountants issued an accounting interpretation of APB Opinion No. 18 that concludes that many of the provisions of APB Opinion No. 18 are usually appropriate in accounting for investments in certain unincorporated entities. The principal difference, aside from income tax considerations, between corporate joint ventures and general partnerships is that a condition that would usually indicate control of a general partnership is ownership of a majority (over 50 percent) of the financial interests in profits or losses. The power to control a general partnership may also exist with a lesser percentage of ownership, for example, by contract, by agreement with other partners, or by court decree. On the other hand, majority ownership may not constitute control if major decisions such as the acquisition, sale, or refinancing of principal partnership assets must be approved by one or more of the other partners. A controlling investor in a general partnership should account for the investment under the principles of accounting applicable to investments in subsidiaries. Accordingly, intercompany profits and losses on assets remaining within the group should be eliminated. A noncontrolling investor in a general partnership should be guided by the provisions of APB Opinion No. 18.

Limited Partnerships

3.19 The accounting recommendations for investments in general partnerships are generally appropriate for accounting by limited partners for their investments in limited partnerships. However, a limited partner's interest may be so minor that the investor may have virtually no influence over partnership operating and financial policies. Such a limited partner is, in substance, in the same position relative to the investment as an investor that owns a minor common stock interest in a corporation, and, accordingly, accounting for the investment using the cost method may be appropriate.

3.20 If the substance of the partnership arrangement is such that the general partners are not in control of the partnership's major operating and financial policies, a limited partner may be in control. An example could be a limited partner holding over 50 percent of the total partnership interest.

3.21 A controlling limited partner should be guided in accounting for its investment by the principles applicable to investments in subsidiaries. Non-controlling limited partners should be guided by the provisions of APB Opinion No. 18, unless the cost method is appropriate, as discussed above.

Undivided Interests

3.22 The accounting interpretation of APB Opinion No. 18 issued by the staff of the American Institute of Certified Public Accountants in December 1971 concluded that most of the provisions of paragraph 19 of APB Opinion No. 18 generally would be appropriate in accounting for investments "in partnerships and unincorporated joint ventures (also called undivided interests in ventures)." However, for unincorporated joint ventures (undivided interests in ventures), the interpretation states the following:

> [B]ecause the investor-venturer owns an undivided interest in each asset and is proportionately [i.e., severally] liable for its share of each liability, the provisions set forth in paragraph 19(c) of the Opinion may not apply in some industries. For example, where it is the established industry practice (such as in some oil and gas venture accounting), the investor-venturer may account in its financial statements for its *pro rata* share of the assets, liabilities, revenues, and expenses of the venture.

For investments in joint ventures in the construction industry that represent bona fide undivided interests, the investor-venturer may account in its financial statements for its pro rata share of the assets, liabilities, revenues, and expenses of the venture.

Adjustments to Net Income to Determine Working Capital

[3.23] [Paragraph deleted, October, 1990.]

Determining Venturers' Percentage Ownership

3.24 Many joint venture agreements designate different allocations among the venturers of (*a*) the profits and losses, (*b*) the specified costs and expenses or revenues, (*c*) the distributions of cash from operations, and (*d*) the distributions of cash proceeds from liquidation. Such agreements may also provide for changes in the allocations at specified future dates or on the occurrence of specified future events. For the purpose of determining the amount of income or loss to be recognized by the venturer, the percentage of ownership interest should be based on the percentage by which costs and profits will ultimately be shared by the venturers. An exception to this general rule may be appropriate if changes in the percentages are scheduled or expected to occur so far in the future that they become meaningless for current reporting purposes. In those circumstances, the percentage interest specified in the joint venture agreement should be used with appropriate disclosures.

Conforming the Accounting Principles of the Venture

3.25 The accounts of a venture may reflect accounting practices, such as those used to prepare tax basis data for investors, that vary from generally accepted accounting principles. If the financial statements of the investor are to be prepared in conformity with generally accepted accounting principles, such variances that are material should be eliminated in applying the equity method.

Losses in Excess of a Venturer's Investment, Loans, and Advances

3.26 A venturer should record its equity in joint venture losses in excess of its investment, loans, and advances if the venturer is liable for the obligations of the venture or is otherwise committed to provide additional financial support to the joint venture. Such circumstances may be evidenced by

1. Legal obligation as a guarantor or general partner.
2. Commitment based on such considerations as business reputation, intercompany relationships, and credit standing. Such a commitment might be evidenced by
   a. Previous support by the venturer indicating that it would make good joint venture obligations.
   b. Public statements by the venturer of its intention to provide support.

Disclosures in a Venturer's Financial Statements

3.27 In addition to the presentation of the basic financial statements and required disclosures in those statements, additional disclosures relating to significant joint ventures that should be considered by a venturer include

1. The name of each joint venture, the percentage of ownership, and any important provisions of the joint venture agreement.
2. If the joint venture's financial statements are not fully consolidated with those of the venturer, separate or combined financial statements of the ventures in summary form, including disclosure of accounting principles of the ventures that differ significantly from those of the venturer.
3. Intercompany transactions during the period and the basis of intercompany billings and charges.
4. Liabilities and contingent liabilities arising from the joint venture arrangement.

Chapter 4

Financial Reporting by Affiliated Entities

4.01 Nonaccounting considerations, including taxation and exposure to legal liability, dictate the organizational structure and operating arrangements of many entities in the construction industry. As a result, many construction operations, when viewed as economic units, include several affiliated entities that are "related parties" as that term is defined in Statement on Auditing Standards (SAS) No. 45, *Omnibus Statement on Auditing Standards—1983,* "Related Parties," and in related auditing interpretations. In defining "related parties," SAS No. 45 quotes the definition in the glossary of FASB Statement No. 57, *Related Party Disclosures,* as follows:

> Affiliates of the enterprise; entities for which investments are accounted for by the equity method by the enterprise; trusts for the benefit of employees such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; principal owners of the enterprise; its management; members of the immediate families of principal owners of the enterprise and its management; and other parties with which the enterprise may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests. Another party also is a related party if it can significantly influence the management or operating policies of the transacting parties or if it has an ownership interest in ne of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests.

4.02 The division believes that consolidated or combined financial statements for the members of a group of affiliated entities that constitute an economic unit generally present more meaningful information than the separate statements of the members of the economic unit. The separate statements of the members of the group usually cannot stand on their own because they may not reflect appropriate contract revenue, costs, or overhead allocations and because transactions may be unduly influenced by controlling related parties. Under generally accepted accounting principles, there is a presumption that entities with parent-subsidiary relationships should present consolidated financial statements. ARB No. 51, *Consolidated Financial Statements*, specifies the basis of presentation. Other recommended financial statement presentations for affiliated companies are presented in this chapter.

Combined Financial Statements

4.03 For the purpose of presenting financial condition, results of operations, and cash flows of a group of affiliated companies that generally conduct their construction operations as, in effect, a single economic unit, combined financial statements are preferable unless consolidated financial statements are appropriate under ARB No. 51 as amended by FASB Statement No. 94, *Consolidation of All Majority-Owned Subsidiaries.* In determining the need for combined financial statements, a group of affiliated companies should be viewed as a single economic unit if the members of the group are under common control and if their operations are closely interrelated and economically interdependent.

4.04 In the presentation of combined statements for members of an economic unit, general practices followed in the preparation of consolidated statements should be used in such matters as transactions between members of the economic unit, minority interests, foreign operations, income taxes, and different fiscal periods. The disclosures required in consolidated statements should be made, as well as disclosures relating specifically to combined statements. These include

- A statement to the effect that combined statements are not those of a separate legal entity.
- The names and year-ends of the major entities included in the combined group.
- The nature of the relationship between the companies.

The capital of each entity should be disclosed on the face of the financial statements or in a note, either in detail by entity if the number of entities is small or, if detailed disclosure is not practicable, in condensed form with an explanation as to how the information was accumulated.

Presentation of Separate Statements of Members of an Affiliated Group

4.05 Although the division recommends consolidated or combined statements of affiliated companies as the primary financial statements of an economic unit, the needs of specific users may sometimes necessitate the presentation of separate statements for individual members of an affiliated group. The issuer of separate financial statements for a member of an affiliated group should make appropriate disclosures on related parties. Related party transactions include transactions between a parent company and its subsidiaries, transactions among subsidiaries of a common parent, and transactions in which the reporting entity participates with other affiliated businesses, with management, or with principal stockholders (or other ownership interests).

4.06 In accordance with FASB Statement No. 57, financial statements of a reporting entity that has participated in material related party transactions should disclose, individually or in the aggregate, the following:

- The nature of the relationship(s) involved[2]
- A description of the transactions, including transactions to which no amounts or nominal amounts were ascribed, for each of the periods for which income statements are presented, and such other information deemed necessary to an understanding of the effects of the transactions on the financial statements
- The dollar amounts of transactions for each of the periods for which income statements are presented and the effects of any change in the method of establishing the terms from that used in the preceding period
- Amounts due from or to related parties as of the date of each balance sheet presented and, if not otherwise apparent, the terms and manner of settlement
- The information required by paragraph 49 of FASB Statement No. 109, *Accounting for Income Taxes* (effective for fiscal years beginning after December 15, 1992.)

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[2] The nature of common control should be disclosed even when no transactions between the parties have occurred.

4.07 The division also recommends presentation in a note to the financial statements of the condensed consolidated or combined balance sheet and statement of income of the members of the affiliated group that constitute the economic unit.

Chapter 5

*Differences Between Financial Accounting and Income Tax Accounting**

Causes and Sources of Differences

5.01 Differing and often conflicting objectives and needs in determining income for current income tax payments and for financial reporting have led to the practice, common in the construction industry, of measuring income for income tax purposes by methods different from those used for financial reporting purposes.

5.02 As previously discussed, income determination in the construction contracting industry involves many varied and changing conditions over which a contractor may have little control. Under most contracts, cash payments, which frequently represent amounts in excess of contract profit, are withheld by the owner until final acceptance of the project and are paid to the contractor in a period or periods different from those in which the income is earned. Those conditions have led contractors to adopt acceptable income tax reporting policies that defer income recognition for tax purposes until contracts are completed or that report income from contracts on a cash basis or on the basis of billings.

5.03 Despite the acceptability and appropriateness of such methods for determining current tax payments, the contractor, when measuring current financial status for financial reporting purposes, must take into account all known factors regarding contract performance. The financial reports serve as the basis for management planning and control; and the reports provide bonding companies and credit grantors with information on the current contract and financial status, which is generally required by them as part of their bonding or lending activities.

5.04 The differences between the periodic amounts of contract income reported during the term of a contract for financial reporting and income tax purposes result in timing differences. APB Opinion No. 11,* *Accounting for Income Taxes*, requires comprehensive interperiod tax allocation in financial reporting. Many of the various types of timing differences are the same for contractors as they are for other business enterprises. In addition, the following operating and financial reporting characteristics in the construction industry affect the nature and types of timing differences in the industry:

- For reasons previously discussed, it is often not desirable for contractors to use, for income tax purposes, the method of accounting for contracts that is appropriate for financial reporting purposes.
- Joint performance of contracts under formal venture agreements is often necessary, and this creates a separate tax accounting entity that

* Note—The material in this chapter is based on the provisions of APB Opinion No. 11, *Accounting for Income Taxes*. FASB Statement No. 109, *Accounting for Income Taxes*, is effective for fiscal years beginning after December 15, 1992. It supersedes APB Opinion No. 11 and FASB Statement No. 96, *Accounting for Income Taxes*. This chapter may be revised in future editions to conform to the provisions of FASB Statement No. 109.

must adopt its own contract accounting methods and tax accounting policies. Also, taxable periods and accounting methods of such an entity may not coincide with those of the venturers.

- When current estimates of contract performance indicate an ultimate loss, accounting principles require a current loss provision, which is not deductible currently for income tax purposes.

Accounting Methods Acceptable for Income Tax Purposes

5.05 In addition to the percentage-of-completion and completed-contract methods, contractors ordinarily have available to them the cash method and "accrual" methods (billings and costs) of accounting for determining taxable income. Contractors, like other taxpayers, are not ordinarily required to use the same method for both financial reporting and tax purposes, but they should be familiar with both the financial reporting and tax effects of a choice of a method of accounting for income tax purposes. When effective tax planning dictates the use of a different method for tax purposes, ordinarily there should be no reluctance to use that method.

Cash Method

5.06 The cash method has a potential tax advantage for a contractor because careful year-end scheduling of controllable receipts and disbursements can be used in tax planning. Under the cash method of computing taxable income, all items that represent gross income—whether in the form of cash, property, or services—are included in income for the taxable year in which they are received or constructively received. Expenditures are generally deducted as expenses in the taxable year in which they occur. Income is constructively received in the taxable year in which it is credited to the taxpayer's account or set apart for him so that he may draw on it at any time. However, income is not constructively received if the taxpayer's control of its receipt is subject to substantial limitations or restrictions. A contractor using the cash method who intentionally defers or postpones billings to shift income from one period to another may be deemed to have constructively received as income amounts of billings deferred or postponed. The provisions of the contract and the actual performance on the project are the factors that determine when income is taxable. Although taxable income is affected by normal lags between billings and payments, a taxpayer reporting on a cash basis cannot arbitrarily determine the period in which income on a contract will be reported by arbitrarily selecting a billing date.

5.07 Under the cash method, contract costs are deductible in the year in which they are paid, even though the contract income has not been earned or received. For tax purposes, contract costs are deferred charges, not inventories. Although the cash basis method of reporting income cannot be applied to inventories, carrying minor amounts of inventories does not preclude a taxpayer from using that method. However, the cash method cannot be applied to inventories of large quantities of materials purchased and stored for future use without assignment for a specific contract. A taxpayer in the home building business who builds for resale must accumulate contract costs and deduct them in the year in which the sale of the property is reported, even though he may claim to be on the cash basis. Under those circumstances, contract costs must be treated as work in progress. Also, an expenditure may be deductible only in part for the taxable year in which it is made if the expenditure is for an asset (for example, a depreciable asset or a three-year insurance policy) having a useful life that extends substantially beyond the close of the taxable year.

"Accrual" Method

5.08 A company using an accrual method for income tax purposes reports as revenue amounts billed on contracts and as cost of earned revenue contract costs incurred to the date of the most recently rendered contract billing. Other expenditures are deductible as incurred. The accrual method may accelerate tax liabilities if gross margins on early billings are greater than gross margins on billings in the later stages of the contract. A contractor may elect to exclude retentions from income until they are received; otherwise, they are recognized when billed, which may create a cash flow disadvantage since retentions normally are not collected until after contract completion.

Chapter 6
Financial Statement Presentation

Balance Sheet Classification

6.01 The predominant practice in the construction industry is to present balance sheets with assets and liabilities classified as current and noncurrent, in accordance with chapter 3A of ARB No. 43, *Restatement and Revision of Accounting Research Bulletins*, on the basis of one year or the operating cycle (if it exceeds one year).

6.02 Construction contractors may use either a classified or unclassified balance sheet.

- A classified balance sheet is preferable for entities whose operating cycle is one year or less. An entity whose operating cycle for most of its contracts is one year or less but that periodically obtains some contracts that are significantly longer than normal may use a classified balance sheet with a separate classification and disclosure for items that relate to contracts that deviate from its normal operating cycle. For example, if a company with a normal cycle of one year obtains a substantial contract that greatly exceeds one year, it may still use a classified balance sheet if it excludes from current assets and liabilities the assets and liabilities related to the contract that are expected to be realized or liquidated after one year and discloses in the financial statements information on the realization and maturity of those items. The one-year basis of classification, where appropriate, presents information in a form preferred by many sureties and credit grantors as one of the many tools that they use to make analyses of a contractor's operations and financial statements.
- An unclassified balance sheet is preferable for entities whose operating cycle exceeds one year. An entity whose operating cycle exceeds one year may also use a classified balance sheet with assets and liabilities classified as current on the basis of the operating cycle if in management's opinion an unclassified balance sheet would not result in a meaningful presentation.

6.03 A company should disclose liquidity characteristics of specific assets and liabilities if its operating cycle exceeds one year or if it uses an unclassified balance sheet. Information about specific assets and liabilities, including but not limited to accounts and retentions receivable and payable, should be disclosed. The company should disclose the amounts of retentions received or to be paid after one year and, if practicable, the year in which the amounts are expected to be received or paid.

Guidelines for Classified Balance Sheets

6.04 A classified balance sheet should be prepared in accordance with chapter 3A of ARB No. 43 and the guidelines discussed in the following paragraphs.

General Guidance

6.05 For most construction contractors, the operating cycle is difficult to measure with precision because it is determined by contracts of varying durations. Chapter 3 of ARB No. 43 (paragraph 5) defines the operating cycle as

> The average time intervening between the acquisition of materials or services entering [the production] process and the final cash realization . . . .

The operating cycle of a contractor is determined by a composite of many individual contracts in various stages of completion. Thus, the operating cycle of a contractor is measured by the duration of contracts, i.e., the average time intervening between the inception of contracts and the substantial completion of contracts.

6.06 Chapter 3 of ARB No. 43 (paragraph 4) defines current assets in terms of the operating cycle:

> For accounting purposes, the term *current assets* is used to designate cash and other resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the operating cycle of the business. Thus the term comprehends in general such resources as (*a*) cash available for current operations and items which are the equivalent of cash; (*b*) inventories of merchandise, raw materials, goods in process, finished goods, operating supplies, and ordinary maintenance material and parts; (*c*) trade accounts, notes, and acceptances receivable; (*d*) receivables from officers, employees, affiliates, and others, if collectible in the ordinary course of business within a year; (*e*) installment or deferred accounts and notes receivable if they conform generally to normal trade practices; (*f*) marketable securities representing the investment of cash available for current operations; and (*g*) prepaid expenses such as insurance, interest, rents, taxes, unused royalties, current paid advertising services not yet received, and operating supplies.

6.07 Chapter 3 of the bulletin (paragraph 7) similarly defines current liabilities in relation to the operating cycle:

> The term *current liabilities* is used principally to designate obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets, or the creation of other current liabilities . . . the classification is intended to include obligations for items which have entered into the operating cycle, such as payables incurred in the acquisition of materials and supplies to be used in the production of goods or in providing services to be offered for sale; collections received in advance of the delivery of goods or performance of services; and debts which arise from operations directly related to the operating cycle, such as accruals for wages, salaries, commissions, rentals, royalties, and income and other taxes. Other liabilities whose regular and ordinary liquidation is expected to occur within a relatively short period of time, usually twelve months, are also intended for inclusion, such as short-term debts arising from the acquisition of capital assets, serial maturities of long-term obligations, amounts required to be expended within one year under sinking fund provisions, and agency obligations arising from the collection or acceptance of cash or other assets for the account of third persons.
>
> The current liability classification is also intended to include obligations that, by their terms, are due on demand or will be due on demand within one year (or operating cycle, if longer) from the balance sheet date, even though liquidation may not be expected within that period. It is also intended to include long-term obligations that are or will be callable by the creditor either because the debtor's violation of a provision of the debt agreement at the balance sheet date makes the obligation callable or because the violation, if not cured within

a specified grace period, will make the obligation callable. Accordingly, such callable obligations shall be classified as current liabilities unless one of the following conditions is met:

a. The creditor has waived or subsequently lost the right to demand repayment for more than one year (or operating cycle, if longer) from the balance sheet date.

b. For long-term obligations containing a grace period within which the debtor may cure the violation, it is probable that the violation will be cured within that period, thus preventing the obligation from becoming callable.

If an obligation under (b) above is classified as a long-term liability (or, in the case of an unclassified balance sheet, is included as a long-term liability in the disclosure of debt maturities), the circumstances shall be disclosed. Short-term obligations that are expected to be refinanced on a long-term basis, including those callable obligations discussed herein, shall be classified in accordance with FASB Statement No. 6, *Classification of Short-Term Obligations Expected to Be Refinanced.*

6.08 In applying the foregoing definitions, the predominant practice in the construction industry for contractors whose operating cycle exceeds one year is to classify all contract-related assets and liabilities as current under the operating cycle concept and to follow the more specific guidance in the bulletin in classifying other assets and liabilities. To promote uniformity of presentation and to narrow the range of variations in practice, the division recommends that contractors follow those general rules in applying the bulletin. The following is a list of types of assets and liabilities that are generally considered to be contract related and that should generally be classified as current under the operating cycle concept.

a. Contract-related assets include
- Accounts receivable on contracts (including retentions).
- Unbilled contract receivables.
- Cost and estimated earnings in excess of billings.
- Other deferred contract costs.
- Equipment and small tools specifically purchased for, or expected to be used solely on, an individual contract.

b. Contract-related liabilities include
- Accounts payable on contracts (including retentions).
- Accrued contract costs.
- Billings in excess of cost and estimated earnings.
- Deferred taxes resulting from the use of a method of income recognition for tax purposes different from the method used for financial reporting purposes.
- Advanced payments on contracts for mobilization or other purposes.
- Obligations for equipment specifically purchased for, or expected to be used solely on, an individual contract regardless of the payment terms of the obligations.
- Provision for losses on contracts (see paragraph 89 of the SOP).

6.09 Following the foregoing guidance in preparing classified balance sheets will promote consistency in practice and facilitate consolidation of construction contracting segments of a company with segments not engaged in construction contracting.

Retentions Receivable and Payable

6.10 Retentions receivable or payable that will not be realized or paid within a company's normal operating cycle, which may possibly occur because of special arrangements with owners or vendors, should be classified as noncurrent.

Investments in Construction Joint Ventures

6.11 An investor should follow the guidance in chapter 3 on acceptable financial statement presentation of investments in construction joint ventures. If a joint venture investment is presented on the cost or equity basis, the investment should be classified as noncurrent unless the venture is expected to be completed and liquidated during the current operating cycle of the investor. Losses in excess of an investment should be presented as a liability, and the classification principle for assets should apply.

Equipment

6.12 Equipment that is acquired for a specific contract, that will be used only on that contract, and that will be consumed during the life of the contract or disposed of at the conclusion of the contract should be classified as a contract cost.

Excess Billings

6.13 Billings in excess of costs and estimated earnings should generally be classified as a current liability. However, to the extent that billings exceed total estimated costs at completion of the contract plus contract profits earned to date, such an excess should be classified as deferred income. Some believe that all or part of the billings in excess of costs and estimated earnings should be classified as a noncurrent credit under the concept that the amount represents deferred income or a deferred credit. Nevertheless, the division concluded that such a position lacks substantive support and, except in those circumstances that would result in excesses of the type identified in the second sentence of this paragraph, excess billings should be regarded as obligations for work to be performed and classified as current liabilities.

Liabilities

6.14 For a company with an operating cycle in excess of one year, liabilities related to contracts should be classified as current on the basis of the operating cycle. For example, if a classified balance sheet is prepared using an operating cycle longer than one year, all contract-related assets to be realized within the operating cycle and related liabilities maturing within that cycle should be classified as current. Other liabilities should be classified on the basis of the specific guidance in chapter 3 of ARB No. 43.

Deferred Income Taxes

6.15 Deferred taxes represent the tax effects resulting from timing differences recognized in the determination of income tax expense in current and prior periods. Deferred taxes should be classified in accordance with FASB Statement No. 37, *Balance Sheet Classification of Deferred Income Taxes* (as revised by FASB Statement No. 109, *Accounting for Income Taxes*, effective for fiscal years beginning after December 15, 1992).

Offsetting or Netting Amounts

6.16 A basic principle of accounting is that assets and liabilities should not be offset unless a right of offset exists. Thus the net debit balances for certain contracts should not ordinarily be offset against net credit balances relating to others, unless the balances relate to contracts that meet the criteria for combining in the SOP.

6.17 ARB No. 45, *Long-Term Construction-Type Contracts*, recognized the principle of offsetting in discussing the two accepted methods of accounting for long-term construction-type contracts. For the percentage-of-completion method, the bulletin states

> . . . current assets may include costs and recognized income not yet billed, with respect to certain contracts; and liabilities, in most cases current liabilities, may include billings in excess of costs and recognized income with respect to other contracts.

In commenting on the completed-contract method, the bulletin states

> . . . an excess of accumulated costs over related billings should be shown in the balance sheet as a current asset, and an excess of accumulated billings over related costs should be shown among the liabilities, in most cases as a current liability. If costs exceed billings on some contracts, and billings exceed costs on others, the contracts should ordinarily be segregated so that the figures on the asset side include only those contracts on which costs exceed billings, and those on the liability side include only those on which billings exceed costs.

Offsetting should be applied in the same way under the percentage-of-completion method.

6.18 Although the suggested mechanics of segregating contracts between those on which costs exceed billings and those on which billings exceed costs do not indicate whether billings and related costs should be presented separately or combined (netted), separate disclosure in comparative statements is preferable because it shows the dollar volume of billings and costs (but not an indication of future profit or loss). In addition, grantors of credit, such as banks and insurance companies, have expressed a preference for separate disclosure. Disclosure may be made by short extension of the amounts on the balance sheet or in the notes to the financial statements. Thus, under the percentage-of-completion method, the current assets may disclose separately total costs and total recognized income not yet billed for certain contracts, and current liabilities may disclose separately total billings and total costs and recognized income for other contracts. The separate disclosure of revenue and costs in statements of income is the generally accepted practice. Only through comparable presentation of such data in the balance sheet can the reader adequately evaluate the contractor's comparative position.

6.19 An advance received on a cost-plus contract is usually not offset against accumulated costs unless it is definitely regarded as a payment on account of work in progress. Such advances generally are made to provide a revolving fund and are not usually applied as partial payment until the contract is nearly or fully completed. However, advances that are definitely regarded as payments on account of work in progress should be shown as a deduction from the related asset, and the amounts should be disclosed. Also, for advance payments on a terminated government contract, the financial statements of the contractor issued before collection of the claim should ordinarily reflect any balance of those advances as deductions from the claim receivable.

Disclosures in Financial Statements

6.20 In addition to the financial statement disclosures generally required in an entity's financial statements, the following disclosures should be made in the notes to the financial statements of contractors if they are not disclosed in the body of the financial statements.

Significant Accounting Policies

6.21 In accordance with APB Opinion No. 22, *Disclosure of Accounting Policies*, significant accounting policy disclosures should include the following:

a. *Method of reporting affiliated entities.* Information relating to the method of reporting by affiliated entities should be disclosed, along with the disclosures recommended in chapter 4.

b. *Operating cycle.* If the operating cycle exceeds one year, the range of contract durations should be disclosed.

c. *Revenue recognition.* The method of recognizing income (percentage of completion or completed contract) should be disclosed.

   1. If the percentage-of-completion method is used, the method of computing percentage of completion (e.g., cost to cost, labor hours) should be disclosed.
   2. If the completed-contract method is used, the reason for selecting that method should be indicated (e.g., numerous short-term contracts for which financial position and results of operations reported on the completed-contract basis would not vary materially from those resulting from use of the percentage-of-completion method; inherent hazards or undependable estimates that cause forecasts to be doubtful).

d. *Method of reporting joint venture investments.* The method of reporting joint ventures should be disclosed, along with other joint venture disclosures.

e. *Contract costs.*

   1. The aggregate amount included in contract costs representing unapproved change orders, claims, or similar items subject to uncertainty concerning their determination or ultimate realization, plus a description of the nature and status of the principal items comprising such aggregate amounts and the basis on which such items are recorded (for example, cost or realizable value).
   2. The amount of progress payments netted against contract costs at the date of the balance sheet.

f. *Deferred costs.* For costs deferred either in anticipation of future sales (precontract costs) or as a result of an unapproved change order, the policy of deferral and the amounts involved should be disclosed.

Revised Estimates

6.22 Revisions in estimates of the percentage of completion are changes in accounting estimates as defined in APB Opinion No. 20, *Accounting Changes.* (See paragraphs 82 and 83 of the SOP.) Paragraph 84 of the SOP states:

> Although estimating is a continuous and normal process for companies in the contracting business, the second sentence of paragraph 33 of APB Opinion 20 recommends disclosure of the effects of significant revisions if the effect is material.

Backlog on Existing Contracts

6.23 In the construction industry, one of the most important indexes is the amount of backlog on uncompleted contracts at the end of the current year as compared with the backlog at the end of the prior year. Contractors are encouraged to present backlog information for signed contracts on hand whose cancellation is not anticipated. Backlog can be reported by industry or type of facility and by location (domestic or foreign). Additional disclosures that a company may want to make include backlog on letters of intent and a schedule showing backlog at the beginning of the year, new contract awards, revenue recognized for the year, and backlog at the end of the year. The presentation of backlog information is desirable only if a reasonably dependable determination of total revenue and a reasonably dependable estimate of total cost under signed contracts or letters of intent can be made. Information on signed contracts should be segregated from information on letters of intent if both types of information are presented.

Receivables

6.24 If receivables include billed or unbilled amounts under contracts representing unapproved change orders, claims, or similar items subject to uncertainty concerning their determination or ultimate realization, the balance sheet, or a note to the financial statements, should disclose the amount, a description of the nature and status of the principal items comprising the amount, and the portion, if any, expected to be collected after one year. Paragraphs 61 to 63 and 65 to 67 of the SOP discuss accounting for change orders and claims.

6.25 If receivables include other amounts representing the recognized sales value of performance under contracts and if the amounts had not been billed and were not billable to customers at the date of the balance sheet, these amounts, a general description of the prerequisites for billings, and the portion, if any, expected to be collected after one year should be disclosed.

6.26 If it is not probable that a claim will result in additional contract revenue or if the amount cannot be reliably estimated, disclosure of a contingent asset should be considered. When disclosing contingencies that might result in gains, in accordance with paragraph 17 of FASB Statement No. 5, *Accounting for Contingencies*, care should be exercised to avoid misleading implications as to the likelihood of realization.

6.27 If receivables include amounts maturing after one year, the following should be disclosed:

- The amount maturing after one year and, if practicable, the amounts maturing in each year.
- Interest rates on major receivable items, or on classes of receivables, maturing after one year or an indication of the average interest rate or the range of rates on all receivables.

6.28 If receivables include amounts representing balances billed but not paid by customers under retainage provisions in contracts, a contractor should disclose, either in the balance sheet or in a note to the financial statements, the amounts included, the portion (if any) expected to be collected after one year, and, if practicable, the years in which the amounts are expected to be collected. The portion of retainages not collectible within one year, or within the operating cycle if it is longer than one year, should be classified as noncurrent in a classified balance sheet.

Chapter 7

Auditing Within the Construction Industry

7.01 The objective of the auditing section of the guide is to assist the independent auditor in applying generally accepted auditing standards in audits of the financial statements of companies in the construction industry. Independent auditors often encounter a variety of complex problems in such engagements because of the nature of operations in the industry and because of the methods used in accounting for contracts, matters that are discussed in the accompanying statement of position, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* (Appendix A), and in the other sections of the guide.

Audit Focus

7.02 In audits of construction contractors, the primary focus is on the profit centers, usually individual contracts, for recognizing revenues, accumulating costs, and measuring income. The auditor must obtain a thorough understanding of the contracts that underlie the financial statements, and the audit procedures followed in an audit of a contractor should be related to those contracts. Evaluation of the profitability of contracts or profit centers is central to the total audit process and to the determination of whether the information in the financial statements is presented in conformity with generally accepted accounting principles.

7.03 The methods and the bases of measurement used in accounting for contracts require the independent auditor to review estimated contract costs, measures of extent of progress toward completion, revenues, and gross profit to form a conclusion on the reasonableness of costs, revenue, and gross profit allocated to the period audited. Thus, much of the independent auditor's work involves evaluating subjective estimates relating to future events, a process which involves highly technical data.

7.04 In the audits of construction contractors, the areas that should receive particular attention include a company's internal control structure, its operating systems and procedures, its project management, the nature of its contracting work, its history of performance and profitability, and other relevant accounting and operating factors. The auditor's primary concerns are internal control structure policies and procedures that relate to the assertions embodied in the financial statements. The auditor should consider tests of controls relating to contract revenues, costs, gross profit or loss, and related contract receivables and payables. In determining the extent of the tests, the auditor should consider the number and significance of individual contracts that appear to pose a high potential risk or to be otherwise troublesome. The objectives should be to obtain an overview of contract status and to document findings.

Scope of Section

7.05 The auditing section of this guide deals primarily with auditing procedures peculiar to audits of construction contractors. It does not discuss auditing procedures that are not unique to such audits or that do not require special application in them; the auditor should refer to other sources for those requirements. The ten generally accepted auditing standards, approved and adopted by the membership of the American Institute of Certified Public Accountants, are explained and distinguished from auditing procedures in Statement on Auditing Standards No. 1, *Codification of Auditing Standards and Procedures.* The focus in this section of the guide is primarily on the second and third standards of field work and on auditing procedures used in compliance with those two standards. Those standards are the following:

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

Chapter 8

Internal Control Structure Policies and Procedures in the Construction Industry

8.01 The discussion of controls in this chapter relates to management's responsibility to establish and maintain an internal control structure. The discussion is primarily from management's perspective. The discussion is intended to provide the auditor with an overview of the types of desirable controls that contribute to audit efficiency.

8.02 This chapter is not intended to provide the auditor with guidance except as background material. As indicated in SAS No. 55, *Consideration of the Internal Control Structure in a Financial Statement Audit*, and as recognized in chapter 9 of this guide, the auditor's primary concern is to consider internal control structure policies and procedures that relate to the assertions embodied in the financial statements. The auditor's consideration of the internal control structure is discussed in chapter 9 of this guide.

8.03 This chapter presents a general discussion of some of the desirable internal control structure policies and procedures in the construction industry. While not all the controls identified are found in every construction company, their discussion can serve as guidance concerning what might be considered adequate controls for a contractor. This discussion considers aspects of controls in the following areas:

- Estimating and bidding
- Project administration and contract evaluation
- Job site accounting and controls
- Billing procedures (including determination of reimbursable costs under cost-plus contracts)
- Contract revenues
- Contract costs
- Construction equipment
- Claims, extras, and back charges
- Joint ventures
- Internal audit function

Estimating and Bidding

8.04 Controls over the estimating and bidding functions are necessary to provide reasonable assurance that contracts are bid or negotiated on the basis of data carefully compiled to take into account all factors that will affect the cost, revenue, and profitability of each contract. Unreliable estimates and bids can obscure losses on contracts in their early stages or can overstate or understate the estimated profitability of contracts.

8.05 A contractor's controls over estimating and bidding should provide for adequate documentation, clerical verification, and overall review of estimated costs and should require that deliberate "low bids" are approved by appropriate levels of management. Estimates should be based on contract specifications, plans, and drawings to provide assurance that the estimates of contract costs reflect all relevant cost elements. Prices and quantities used should be derived from reliable sources. Escalation clauses, if they are possible, are desirable in contracts to protect against unforeseen increases in material and labor costs, particularly for contracts of long duration. The contractor should establish internal procedures to verify the clerical accuracy of final contract estimates. The contractor should have prescribed procedures to review the completeness and reasonableness of the final estimate; for example, two independent estimates may be desirable on complex or large contracts. The procedures followed should, to the extent possible, preclude arbitrary, undocumented management-level adjustments to estimated costs.

8.06 The estimate of contract costs and the accounting records should be prepared and maintained in a consistent manner that will permit subsequent detailed comparison of actual costs with estimated costs. A record should be maintained of the bids submitted by competing firms, if those bids are available. Such cost and bid information is helpful to management and may provide them with evidence of the reliability of their estimating and bidding process.

8.07 To provide continuing assurance that desirable internal control structure policies and procedures are maintained over the estimating and bidding functions, a contractor should have assigned personnel regularly perform monitoring procedures. For instance, a contractor might assign personnel to perform the following tasks:

- Review the quantities of material and hours of labor in bid estimates and compare them to the customers' specifications.
- Compare and relate estimated material costs to published vendor price lists, price quotations, subcontractors' bids, or other supporting documentation.
- Compare and relate estimated labor rates to union contracts and other documentation supporting labor rates, payroll taxes, and fringe benefits.
- Compare and relate estimated equipment costs to the rates charged by suppliers for rental or used by the contractor to allocate the cost of owned equipment to jobs.
- Recognize the effects of cost increases, including historical trends, the anticipated results of future labor negotiations, the effect of unusual geographic location, the sources and availability of materials and labor, and inflation. The desirable control objective of the procedure is that bids should reflect an assessment of possible future increases in labor costs during the period of the contract.
- Verify the clerical accuracy of estimates.
- Determine that estimates are reviewed and approved by designated management personnel.
- Review contracts periodically to assess the extent and effect of management changes or revisions of bids without supporting data such as revised cost estimates.
- Update estimates periodically based on documented discussions with engineering personnel responsible for the project.

8.08 As discussed in chapter 9, the auditor should obtain an understanding of such internal control structure policies and procedures by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation.

Project Administration and Contract Evaluation

8.09 The quality and extent of project management often determine whether a construction contract is profitable or unprofitable. Timely and reliable progress, cost, and status reports on each contract are essential to enable management to evaluate the status and profitability of each project. To be useful, the reports should be timely and frequent enough to enable management to identify problems at an early stage. Regularly scheduled meetings with project managers and periodic management visits to job sites may also enhance the effectiveness of project administration.

8.10 Management should review and evaluate regularly the status of each contract in progress to estimate the profit or loss. That procedure provides information that enables management to take corrective action to improve performance on a given contract, and it is an integral part of an effective internal control structure. Management's review of individual contracts should be comprehensive; as part of the review, detailed actual costs plus a realistic estimate of costs to complete all phases of the project should be compared with the details of the original estimate and the total contract price. Information considered in the review should include items such as the following:

- Cost records, which should be used for a comparison of the principal components of actual costs with original estimates.
- Open purchase orders and commitments.
- Reports such as engineering progress reports, field reports, and project managers' status reports.
- Conferences with project engineers and independent architects.
- Correspondence files.
- Change orders.

8.11 If there are significant subcontract costs, the contractor should have controls to provide that payments to subcontractors are made only on the basis of work performed, that performance bonds are obtained, and that retentions are recorded and accounted for properly.

Job Site Accounting and Controls

8.12 The size and location of some construction projects may require a contractor to establish an accounting office at the job site, and all or part of the accounting function relating to that project—including payrolls, purchasing, disbursements, equipment control, and billings—may be performed at the job site. Establishing an internal control structure at job site accounting offices may be difficult because such offices are temporary and may be staffed with a limited number of trained accounting personnel. Therefore, particular attention should be directed to the areas discussed in the following paragraphs.

8.13 The temporary nature of the employment of most construction workers and the frequent practice of paying them in cash can make the establishment of controls difficult. Construction contractors should consider having internal auditors, or corporate administrative personnel, periodically disburse or observe payrolls at job sites to strengthen internal control over payrolls.

8.14 Established accounting procedures should require a designated level of management to authorize all material purchases at job sites and should specify the documentation required as evidence of receipt of materials. Payments for materials should not be made without proper authorization and evidence of receipt.

8.15 A contractor should establish and maintain adequate physical controls over equipment, materials, and supplies at job sites to help prevent loss by pilferage or unauthorized usage. The structure should also provide that surplus materials are inventoried at the completion of a contract and that the subsequent disposition of such materials is appropriately reviewed and accounted for. The general accounting department should maintain effective supervision over job site offices, particularly if the size or nature of a contractor does not permit the establishment of an internal audit function.

Billing Procedures

8.16 Billing procedures in the construction industry differ from those in other industries. A typical manufacturing company, for example, normally bills a customer on the shipment of its product. In contrast, billing procedures in the construction industry vary widely among companies and are often not correlated with performance. Different types of contracts and different ways of measuring performance for billing purposes are prevalent. For example, billings may be based on various measures of performance, such as cubic yards excavated, architects' estimates of completion, costs incurred on cost-plus type contracts, or time schedules. Also, the data required to prepare a billing for a fixed-price contract differ from the data required for a cost-plus contract.

8.17 The internal control structure should provide that personnel responsible for billing receive accurate, timely information from job sites. Since billing and payment terms often vary from contract to contract, the personnel responsible for billing should be familiar with the terms of the contracts, and billing procedures should be designed to recognize unique contract features. Billings that are not made in accordance with the terms of the contract should be approved by designated management personnel.

8.18 A contractor's receivables usually include retentions, that is, amounts that are not due until contracts are completed or until specified contract conditions or guarantees are met. Retentions are governed by contract provisions and are typically a fixed percentage (for example, 5 percent or 10 percent) of each billing. Some contracts provide for a reduction in the percentage retained on billings as the contract nears completion. A contractor's billing procedure and related internal control should provide that a contractor bill retentions in accordance with the terms of a contract and that accounts are reviewed periodically to determine that retention payments are ultimately received. A contractor should also have a routine procedure for filing liens at the time of each billing to provide assurance that lien rights are protected before they expire.

8.19 To provide continuing assurance that desirable internal control is maintained over the billing function, a contractor should have assigned personnel regularly perform monitoring procedures. A contractor might assign personnel to perform the following tasks:

- Relate billings, including retentions, to the terms of the original contract and of approved change orders.
- Accumulate and retain the data necessary to prepare and support billings, including costs incurred to date, engineers' estimates of completion, architects' certifications, and other pertinent information.

8.20 As discussed in chapter 9, the auditor should obtain a sufficient understanding of such internal control structure policies and procedures to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation.

Contract Costs

8.21 A contractor uses information on contract costs to control costs, to evaluate the status and profitability of contracts, and to prepare customer billings. Thus, the importance of accurate cost information cannot be overemphasized.

8.22 Contract cost records should be designed to facilitate detailed comparisons of actual costs with estimated costs. The records should provide for the classification and summarization of costs into appropriate categories such as materials, subcontract charges, labor, labor-related costs, equipment costs, and overhead. The accounting system should provide for the periodic submission of detailed cost reports to management and to project managers. Their review of the reports serves to identify potential problems on contracts, to check on the reasonableness of the cost records, and to minimize the possibility of having unauthorized costs charged to the contract.

8.23 A contractor should establish internal control structure policies and procedures over contract costs, prescribe the manner in which they are applied, and assign responsibility to designated personnel. Internal control procedures should assure, for example, that the detail contract cost records are in agreement with the general ledger control records and that proper cutoffs are made at the close of each accounting period. To provide continuing assurance that desirable internal control structure policies and procedures are maintained over contract costs, a contractor should have assigned personnel regularly perform monitoring procedures. Assigned personnel should

- Compare and relate the quantities and prices of materials charged to contracts to vendors' invoices, purchase orders, and evidence of receipt of materials and, if applicable, withdrawal and return documents from central stores.
- Document labor charged to contracts by reference to payroll records and related documents, such as time cards, union contracts or pay authorizations, authorized deductions, and cancelled payroll checks; and review payroll distribution to individual contracts.
- Relate subcontract costs charged to contracts to the terms specified in the subcontract agreements and supporting documents.
- Inspect performance, guarantee, and similar bonds of subcontractors.
- Compare and relate retentions payable to subcontractors to subcontract agreements.
- Inspect waivers of lien on completed work from subcontractors.
- Approve back charges, extras, and claims.
- Compare and relate equipment rental costs charged to contracts (*a*) to the contractor's standard rates for owned equipment and to vendor invoices or rental agreements for leased equipment and (*b*) to delivery reports, production or maintenance records, or similar data.
- Compare equipment costs charged directly to a contract (purchased for exclusive use on a particular contract, such as a cement plant and related trucks) to vendor invoices and related documents, and control the disposition of such equipment.
- Accumulate and allocate indirect costs to contracts.
- Accumulate reimbursable costs under cost-plus contracts and segregate those costs in the accounts.

8.24 As discussed in chapter 9, the auditor should obtain a sufficient understanding of such internal control structure policies and procedures to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation.

Contract Revenues

8.25 A contractor's internal control structure policies and procedures over contract revenues should be designed to provide reliable information on the amount and timing of contract revenue. The types of control established depend on the method of revenue recognition used. Controls should relate not only to amounts of revenue expected from contracts but also to the procedures and information used either in measuring progress toward completion (to determine the amount of earned revenue under the percentage-of-completion method) or in determining when a contract is substantially completed (under the completed-contract method).

8.26 To provide continuing assurance that desirable internal control structure policies and procedures are maintained over contract revenues, a contractor should have assigned personnel regularly perform monitoring procedures. Assigned personnel should

- Prepare and support current estimates of total revenue under each contract in process.
- Process and approve change orders and inform personnel responsible for performance of contracts of those change orders.
- Determine that revenue arising from unpriced change orders and claims does not exceed the related recoverable costs, and that only costs that are reimbursable in accordance with the terms of cost-plus contracts are included in revenue.
- Provide for timely notification of, and adjustments for, contract cancellations and postponements.
- Select methods to measure progress that are suitable to the circumstances and apply the methods consistently.
- Accumulate and verify the information used to measure the extent of progress toward completion, such as labor hours and units of output.
- Verify the accuracy of the computations of the percentage of completion, earned revenue, and the cost of earned revenue.
- Review and document contracts reported on the completed-contract basis for consistent application of completion criteria.
- Evaluate periodically the profitability of contracts and provide for losses on loss contracts in full at the earliest date on which they are determinable.
- Reconcile periodically the total earned revenue on a contract to total billings on the contract.

8.27 As discussed in chapter 9, the auditor should obtain a sufficient understanding of such internal control structure policies and procedures to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation.

Construction Equipment

8.28 Contractors frequently have substantial investments in construction equipment. The dollar amounts involved and the necessity of charging equipment costs to contracts make it necessary to maintain effective internal control structure policies and procedures over equipment. Records should be maintained for all major equipment; reporting procedures to control and record the transfer of equipment between projects should be in effect; and periodic equipment reports should indicate the location of the equipment (to facilitate review by project managers). Field equipment should be physically inventoried periodically and at the completion of each project. The equipment records should include adequate cost information that is in agreement with the general accounting records; this information enables the contractor to charge each project with costs related to the equipment being used on it.

8.29 Small equipment, such as power hand tools, which is often charged directly to a contract, should be subject to appropriate physical control at the job site to prevent loss or pilferage.

Claims, Extras, and Back Charges

8.30 A contractor should establish and maintain an internal control structure over claims, extras, back charges, and similar items to provide reasonable assurance that such items are properly documented and to provide for the accumulation of related revenues and costs. For example, one desirable procedure is to require written authorizations for change orders from an authorized customer representative before doing extra work.

Joint Ventures

8.31 Control over the operations of joint ventures is essential for the financial success of the venture and the participating contractors. Although the nature and extent of control over the operations and the accounting records of joint ventures vary with each venture, a joint venture participant should be satisfied that adequate accounting records and desirable internal control structure policies and procedures are maintained.

Internal Audit Function

8.32 Contractors engaged in large, complex, and diverse operations especially benefit from internal auditing. An internal audit staff may conduct both operational and financial reviews at a contractor's administrative offices as well as at job sites. The reviews should cover the estimates of cost to complete and the methods used to measure performance on individual contracts. Internal auditors should be involved in testing and evaluating every important control area discussed in this chapter. Their intimate involvement can provide management with continuous feedback on the effectiveness of the internal control structure and the degree of compliance with company policies, and such involvement can enable the internal auditors to make recommendations for improvements in the company's internal control structure.

8.33 One of the objectives of internal audits at job sites is to determine whether personnel at the sites are complying with the contractor's established policies and practices. Such audits may involve a physical inspection of equipment and review and testing of expenditures (including payroll disbursements) from a job site office, status reports to the home office, field equipment records, and contract billings to determine their appropriateness.

Chapter 9

Planning the Audit and Considering the Internal Control Structure

9.01 The preceding chapter discusses, from the perspective of management, the features of an effective internal control structure that a contractor should establish and maintain. This chapter discusses the auditor's responsibility for planning the audit and the auditor's consideration of the internal control structure in auditing a contractor's financial statements. SAS No. 55, *Consideration of the Internal Control Structure in a Financial Statement Audit*, states that the auditor's primary concern is to consider those elements of the internal control structure that relate to the assertions embodied in the financial statements.

9.02 In contrast, a practitioner may be engaged to examine and report on management's written assertion about the effectiveness of an entity's internal control structure over financial reporting as of a point in time. The purpose of a practitioner's examination of management's assertion about the effectiveness of an entity's internal control structure is to express an opinion about whether management's assertion that the entity maintained an effective internal control structure as of a point in time is fairly stated in all material respects, based on the control criteria. The auditor's responsibility in connection with an engagement to examine and report on management's assertion about the effectiveness of an entity's internal control structure is beyond the scope of this guide. It is discussed in Statement on Standards for Attestation Engagements (SSAE) No. 2, *Reporting on an Entity's Internal Control Structure Over Financial Reporting*.

Planning the Audit

9.03 In planning an audit, the auditor's objective is to obtain knowledge of the business, the construction industry, and the operations of the contractor being audited, in accordance with the guidelines in SAS No. 22, *Planning and Supervision*. The auditor should obtain a thorough understanding of the nature of the contractor's work, the types of contracts performed, and the internal control structure maintained by management. After becoming familiar with the industry and the operations of the contractor, the auditor should review a representative sample of the contractor's outstanding contracts.

Review of Contracts

9.04 To obtain a general understanding of a contractor's operations, the auditor should review the terms of a representative sample of the contractor's contracts, including significant contracts, currently in force. These should include both contracts with customers and contracts with subcontractors. Information that the auditor would expect to find is set forth below. The auditor should use this information in the preliminary review of contracts and also in the other stages of the audit.

- Job number
- Type of contract

- Contract price
- Original cost estimate and related gross profit
- Billing and retention terms
- Provisions for changes in contract prices and terms, such as escalation, cancellation, and renegotiation
- Penalty or bonus features relating to completion dates and other performance criteria
- Bonding and insurance requirements
- Location and description of project

9.05 Contract files may indicate bids entered by other contractors. If these are available, the auditor should consider investigating significant differences between such bids and the related contracts to evaluate whether there may be inherent errors in the estimating and bidding process.

Consideration of the Internal Control Structure

9.06 After obtaining a general understanding of the contractor's operations from a review of contracts, the auditor should obtain a sufficient understanding of the control environment, the accounting system and control procedures to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation. This understanding is ordinarily obtained through previous experience with the contractor and procedures such as inquiries of appropriate management, supervisory, and staff personnel; inspection of documents and records; and observation of activities and operations. Internal control structure questionnaires, narrative descriptions, flowcharts, analyses of EDP procedures, and other techniques should be used in this phase of the audit because those techniques enable the auditor to approach the consideration of the internal control structure in a systematic manner and provide an effective means of documentation. The auditor should also evaluate, through inquiries and observations, the extent to which the contractor's personnel are performing their assigned responsibilities in accordance with the established internal control structure policies and procedures and to what extent, if any, incompatible responsibilities are being performed by the same individual.

9.07 If the contractor has an internal audit function, the auditor, in accordance with the provisions of SAS No. 65, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements*, may take into consideration the existence of an internal audit function in determining the nature, timing, and extent of auditing procedures to be performed.

9.08 A wide variety of conditions, such as the materiality of specific contracts, influence the auditor's selection of specific audit procedures. The audit program should be designed on the basis of the auditor's assessment of control risk, the review of significant contracts, and all other relevant information. The audit program may later require modification to reflect the results of the auditor's tests of the effectiveness of the contractor's internal control structure.

Tests of Controls

9.09 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 structure) because he believes policies and procedures 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 policy or procedure that supports a lower assessed level of control risk. Such evidential matter may be obtained from tests of controls planned and performed concurrently with obtaining the understanding or from procedures performed to obtain the understanding that were not specifically planned as tests of controls.

9.10 After obtaining the understanding 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 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.

9.11 The auditor uses the knowledge provided by the understanding of the internal control structure and the assessed level of control risk in determining the nature, timing, and extent of substantive tests for financial statement assertions.

9.12 The discussion of tests of controls relates only to those aspects of a contractor's internal control structure that relate to the assertions in the account balances, transaction classes and disclosure components of the financial statements. The preceding chapter outlines desirable elements of internal control for estimating and bidding, billings, contract costs, and contract revenues. Some of those internal control structure policies and procedures may not be relevant to an audit and therefore need not be considered by the auditor. The auditor considers only those aspects of the internal control structure that relate to the assertions in the account balances, transaction classes and disclosure components of the financial statements.

9.13 Tests of controls ordinarily consist of procedures such as inquires of appropriate entity personnel, inspection of documents and reports indicating performance of the policy or procedure, and reperformance of the application of the policy or procedure by the auditor. SAS No. 39, *Audit Sampling*, provides guidance on the use of audit sampling in audits conducted in accordance with generally accepted auditing standards. That guidance may be useful to auditors in determining the extent of tests of controls.

9.14 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. After considering the level to which he or she seeks to restrict the risk of a material misstatement in the financial statements, 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.

Chapter 10

Major Auditing Procedures for Contractors

10.01 This chapter provides guidance on the major auditing procedures that should be followed in audits of construction contractors. The areas discussed are job site visits, accounts receivable, liabilities related to contracts, contract costs, income recognition, and review of backlog on existing contracts.

Job Site Visits

10.02 In certain situations job site visits are essential for the auditor to understand the contractor's operations and to relate the internal accounting information to events that occur at the job sites. All or part of the accounting function relating to a given project may be performed at a temporary job site office staffed by a limited number of trained accounting personnel, and internal control at job sites may be ineffective. Observations and discussions with operating personnel at the job sites may also assist the auditor in assessing physical security, the status of projects, and the representations of management (for example, representations about the stage of completion and estimated costs to complete). The auditor may therefore visit selected job sites to meet the following three objectives:

- To gain an understanding of the contractor's method of operations.
- To obtain an understanding of those elements of the internal control structure maintained at the job site.
- To obtain information relating to job status and problems (if any) that may be useful in other phases of the audit.

10.03 These three objectives can usually be achieved during one visit to a job site. To do so, however, requires careful planning so that the information to be obtained or examined will be identified before the visit. Furthermore, to meet the third objective, it is usually desirable, before selecting the job sites to be visited, to consider (*a*) the contractor's internal control structure, (*b*) the size, nature, significance, and location of projects, and (*c*) projects that have unusual features or that appear to be troublesome. Unusual or troublesome contracts may include those accounted for under the percentage-of-completion method on the basis of estimates in ranges (paragraph 25(*b*) of the SOP) or on the basis of zero profit estimates (paragraph 25(*c*) of the SOP), those that are combined or segmented for accounting purposes (paragraphs 35 to 42 of the SOP), those with significant unpriced change orders or unsatisfied claims (paragraphs 60 to 63 and 65 to 67 of the SOP), and those subject to unusual risks because of factors such as location, ability to complete turnkey projects satisfactorily, postponement or cancellation provisions, or disputes between the parties.

10.04 To accomplish audit objectives, job site visits may be made at any time during the year or at the end of the year. (See SAS No. 45, *Omnibus Statement on Auditing Standards—1983*, "Substantive Tests Prior to the Balance-Sheet Date.") The auditor should base his decision on an evaluation of other factors in the audit, such as the design and effectiveness internal control structure, the number, size, and significance of projects, the existence of projects with unusual or troublesome features, and the method of accounting for revenue. However, if the contractor's internal control structure is inadequate and if the contractor has in progress any large projects that individually have a material effect on the contractor's results of operations or any projects that have unusual features or that appear to be troublesome, the auditor should consider selecting those projects for visits at or near the year-end.

10.05 In addition to considering the internal control structure and performing tests of the accounting records, the independent auditor should consider performing procedures such as the following during a job site visit:

- Observation of uninstalled materials.
- Observation of work performed to date.
- Observation of contractor-owned or rented equipment.
- Discussions with project managers, supervisors, and other appropriate individuals, including, if possible, the independent architect, regarding the status of the contract and any significant problems.

At the completion of a job site visit, the auditor should have collected information concerning the organization and management of the job, the accounting reports submitted to the general accounting office, the present status of the job, and unusual matters affecting the estimated costs to complete the project.

Accounts Receivable

10.06 The general approach to the audit of a construction contractor's accounts receivable is similar to that followed in the audit of accounts receivable of industrial and commercial enterprises. SAS No. 67, *The Confirmation Process*, provides guidance about the confirmation process in audits performed in accordance with generally accepted auditing standards. The auditor confirms accounts receivable, including retentions. The confirmation should request other pertinent information, such as the contract price, payments made, and status of the contract. Exhibit 10.09 is a sample confirmation letter requiring positive confirmation. Negative confirmations may also be used, provided the conditions described in paragraph 20 of SAS No. 67 exist.

10.07 Certain characteristics of a construction contractor's accounts receivable, such as the following, require special consideration:

- Unbilled receivables
- Retentions
- Unapproved change orders, extras, and claims
- Contract scope changes
- Contract guarantees and cancellation or postponement provisions
- Collectibility

Other characteristics that may require special consideration include approved but unpriced change orders and government contracts under which the contractor proceeds with all phases of the contract even though government funding is approved piecemeal.

Unbilled Receivables

10.08 Unbilled receivables arise when revenues have been recorded but the amount cannot be billed under the terms of the contract until a later date. Specifically, such balances may represent (1) unbilled amounts arising from the use of the percentage-of-completion method of accounting, (2) incurred cost to be billed under cost-reimbursement-type contracts, or (3) amounts arising from routine lags in billing (for example, for work completed in one month but not billed until the next month). It may not be possible to confirm those amounts as receivables directly with the customer; consequently, the auditor should apply alternative audit procedures, such as the subsequent examination of the billing and collection of the receivables and evaluation of billing information on the basis of accumulated cost data.

Exhibit

10.09

Sample Confirmation Request to Owner, General Contractor, or Other Buyer

Re: (*Description of Contract*)

Gentlemen:

Our independent auditors, (*name and address*), are engaged in an audit of our financial statements. For verification purposes only, would you kindly respond directly to them about the accuracy of the following information at (*date*):

1. Original contract price $______
2. Total approved change orders $______
3. Total billings $______
4. Total payments $______
5. Total unpaid balance $______ including retentions of $______
6. Details of any claims, back charges, or disputes concerning this contract (attach separate sheet if necessary)
7. Estimated completion date ______

We enclose a self-addressed, stamped envelope for your convenience in replying directly to our auditors. Your prompt response will be greatly appreciated.

Very truly yours,

Enc.

The above information is:

( ) Correct

( ) Incorrect (please submit details of any differences)

By: ______________________________ ______________________________

Signature Date

____

Title

Retentions

10.10 The contractor's accounting records should provide for separate control for retentions since they are generally withheld until the contract is completed and, in certain instances, for even longer periods. They may also be subject to restrictive conditions such as fulfillment guarantees. The auditor should perform tests in order to evaluate whether retentions are recorded and subject to controls and in order to satisfy himself that they will be collected when due.

Unapproved Change Orders and Claims

10.11 Unapproved change orders and claims are often significant and recurring in the construction industry, and the auditor should give special attention to receivables arising from those sources. Paragraphs 62 and 65 of the SOP set forth the circumstances and conditions under which amounts may be recorded as revenue from unapproved change orders and claims. Because of the nature of those receivables, the auditor may encounter difficulties in evaluating their propriety or the collectibility of the related additional revenue. The auditor may be able to confirm the amounts of unapproved change orders or claims with customers; however, if confirmation is not possible or if the amounts are disputed, the auditor should obtain evidence to evaluate the likelihood of settlement on satisfactory terms and the collectibility of the recorded amounts. The conditions that should be met under the SOP before a receivable should be recorded require adequate evidence to allow for such an evaluation. To accomplish such an evaluation, the auditor should review the terms of the contract and should document the amounts by discussions with the contractor's legal counsel and with contractor personnel who are knowledgeable about the contract.

10.12 The auditor should evaluate the propriety of accumulated costs underlying unapproved change orders and claims that are the basis for significant additional contract revenues. The following are some of the procedures that may be used in auditing such accumulated costs:

- Tests of the accumulation of costs to underlying invoices, time records, and other supporting documentation. In some circumstances, confirmation of relevant data and related amounts with subcontractors and others may be feasible.
- Consideration of whether the work performed or costs incurred were authorized in writing by the customer. If not, additional contract revenues may not be billable, and the costs may not be recoverable.
- Evaluation of whether the costs relate to work within or outside the scope of the contract. If the costs relate to work within the scope of a lump-sum contract, no basis for additional contract revenues may exist, and the costs may not be recoverable.

10.13 The auditor should also evaluate the nature and reasonableness of claimed damages that are attributable to customer-caused delays, errors in specifications that caused incorrect bids, or various other reasons. In connection with such an evaluation, the auditor should consider the quality and extent of the documentary evidence supporting the claim and the extent to which management has pursued the claim; the auditor also should consider consultation with technical personnel. It may also be appropriate to obtain an opinion from legal counsel (1) on the contractor's legal right to file such a claim against the customer and (2) on the contractor's likelihood of success in pursuing the claim.

10.14 A claim may be properly supported, but nevertheless may be uncollectible. Many factors influence collectibility, including the relationship between the contractor and the customer. For example, a contractor may be less likely to press for collection of a claim from a major customer. In evaluating a claim, the auditor may consider the contractor's past experience in settling similar claims. If, for example, the contractor has demonstrated a reasonable degree of success in negotiating and settling similar types of claims and if the documentation supporting a claim under review appears to be similar in scope, depth, and content, the auditor may consider such prior experience in evaluating the collectibility of the claim.

Contract Scope Changes

10.15 Scope changes on contracts, particularly cost-plus contracts, are often not well documented. Large cost-plus contracts frequently evolve through various stages of design and planning, with numerous starts and stops on the part of both the customer and the contractor. As a result, the final scope of the contract is not always clearly defined. The auditor should carefully examine costs designated to be passed through to the customer under such contracts and should determine whether the costs are reimbursable or whether they should be absorbed by the contractor as unreimbursable contract costs. If receivables arise from contract scope changes that are unapproved or disputed by customers, the auditor should be guided by the recommendations on claims.

Contract Guarantees and Cancellation or Postponement Provisions

10.16 Many contracts provide for contract guarantees, such as a guarantee that a power plant, when completed, will generate a specified number of kilowatt hours. A contract may specify a fixed completion date, which, if not met, may result in substantial penalties. For some contracts, retentions and their ultimate realization are related to the fulfillment of contract guarantees. A careful reading of a contract is required to identify guarantees or contingencies associated with a project. The auditor should consider whether the contractor has given adequate consideration to the cost of fulfilling contract guarantees.

10.17 In addition, many contracts contain cancellation and postponement provisions. In reviewing significant contracts and subcontracts, the auditor should note such provisions. The construction contractor's internal procedures should provide for timely notification to subcontractors of contracts cancelled or postponed in order to minimize problems and the possibility of litigation.

10.18 Cancelled or postponed contracts may be identified in the contractor's records or may be disclosed in other ways during the audit. For example, the auditor's confirmation procedures may disclose cancelled or postponed contracts. The auditor should then satisfy himself that the open balance of accounts receivable, which may in effect be a claim, is valid and collectible.

10.19 For a contract that has been cancelled, the auditor should evaluate the contractor's right and ability to recover costs and damages under the contract. If the amounts that the contractor seeks to recover under the contracts are in dispute, they should be evaluated as claims.

10.20 For contracts that have been postponed, the auditor should evaluate whether the estimated cost to complete is documented and reflects inflationary factors that may cause costs to increase because of the delay in the performance of the contract. The auditor should consider the reason for postponement and its ultimate implications, because a postponement could ultimately lead to a cancellation with attendant problems relating to the recoverability of costs. In this area of the audit, the auditor should consider consultation with legal counsel in evaluating the client's contractual rights.

Collectibility

10.21 As work progresses on the contract, construction contractors may experience problems relating to the collectibility of receivables that differ from those found in industrial and commercial companies. Problems may result from the long period of the contract, the size of the contract, the possibility for disputes, and the type of financing the customer has arranged. The contractor should evaluate whether the customer has financial substance or has made financing arrangements through a third party with financial substance. The auditor should review the contractor's determination and also consider performing such auditing procedures as a review of financial statements of the customer or a review of the financing arrangements entered into by the customer with a third party, even though there may be no apparent indication that the receivable might not be collectible.

10.22 In the evaluation of the ability of the customer to satisfy his obligations, the auditor should also consider the stage of completion of the contract, the past payment performance of the customer, and the amount of the contract price yet to be billed under the contract—not solely the customer's ability to remit the year-end outstanding balance. In the event of indications that a customer may be unable to pay the contractor, the auditor should consider the extent to which bonding arrangements and lien rights will limit possible losses by the contractor. The auditor should consider whether lien rights have been filed to protect the contractor's rights. Some of the information obtained in the evaluation of collectibility may be useful in the audit of amounts recognized as income on the contract.

Liabilities Related to Contracts

10.23 The auditor should satisfy himself that liabilities include not only amounts currently due but also retained percentages that apply to both subcontractors and suppliers who bill the contractor in that manner. The auditor should consider requesting confirmation of balances from specific suppliers and subcontractors. Exhibit 10.24 is a suggested confirmation form for subcontractors.

Exhibit

10.24

Sample Confirmation Request to Subcontractor

Gentlemen:

Our independent auditors, (*name and address*), are engaged in an audit of our financial statements. For verification purposes only, would you kindly submit directly to them the following information with respect to each (or specific) contract(s) in force at (*date*):

1. Original contract price
2. Total approved change orders
3. Total billings
4. Total payments
5. Total unpaid balance, including retentions
6. Total retentions included in total balance due
7. Total amount and details of pending extras and claims in process of preparation, if any (attach separate sheet if necessary)
8. Estimated completion date

We enclose a self-addressed, stamped envelope for your convenience in replying directly to our auditors. Your prompt response will be greatly appreciated.

Very truly yours,

Enc.

10.25 The auditor should satisfy himself that the contractor has made a proper cutoff and that all costs, including charges from subcontractors, have been recorded in the correct period. Charges by subcontractors should be in accordance with the terms of their contracts and the work performed by the subcontractor. They should not simply represent advances that may be allowable under contract terms. The amounts billable by a subcontractor under the terms of a contract represent the amount that should be recorded in accounts payable; however, the actual work performed on the job represents the amount that should be recorded as allowable cost in determining the extent of progress toward completion. In reviewing liabilities, the auditor should be alert for indications of claims and extras that may be billed by the subcontractor. The review may also disclose amounts that should be accounted for as back charges to the subcontractor under the terms of the contract.

10.26 All invoices for services rendered should be recorded as accounts payable even though the amount may not be used in measuring the performance to date on the contract. The auditor should satisfy himself that the contractor has not included amounts not used in measuring performance in both the cost incurred to date and the estimated cost to complete.

10.27 The older invoices and retentions included in accounts payable should be reviewed for an indication of defective work, failure on performance guarantees, or other contingencies that may not have been recorded on the contractor's records or included in the estimated cost to complete.

10.28 Under the Uniform Commercial Code (UCC), financial institutions and other creditors often file a notice of a security interest in personal property on which they have advanced credit. Notices may be filed with both the state and county in which the property is located. The auditor should consider sending UCC inquiry forms to states and counties in which the contractor has significant jobs. Such inquiries may disclose unrecorded liabilities and security interests, as defined in the Uniform Commercial Code.

Contract Costs

10.29 The auditing of contract costs involves two primary areas: the accumulated costs to date and the estimated cost to complete. The auditor should keep in mind that in the audit of a contractor the emphasis is on the contract and the proper recording of contract revenues and costs. The determination of the accuracy of both the cost incurred to date and the estimated cost to complete is necessary for each contract in order to determine whether the gross profit on a contract is recognized in conformity with generally accepted accounting principles.

10.30 Income for a contractor is determined by the ultimate profit or estimated profit on each contract and is not based on the billings to date or the cost incurred to date. Under the completed-contract method, profit recognition is deferred until the contract is substantially completed; therefore, the cost incurred to date on uncompleted contracts is not reflected in the determination of current income unless a loss on the contract is anticipated. Conversely, the percentage-of-completion method requires that projected gross profit on the contract be estimated before the gross profit for the period under audit can be determined.

10.31 The audit considerations concerning both the accumulated cost to date and the estimated cost to complete are discussed in this section.

Costs Incurred to Date

10.32 The auditor should satisfy himself that the contractor has properly recorded costs incurred to date by contracts. The auditor should satisfy himself that the contractor has included in accumulated contract costs identifiable direct and indirect costs and an acceptable and consistent allocation of overhead to specific contracts. For cost-plus contracts, the auditor should satisfy himself that the contractor has not recognized contract revenue based on unreimbursable contract costs. The extent of substantive testing will depend, in part, on the auditor's assessment of control risk, as discussed in chapter 9.

Estimated Cost to Complete

10.33 One of the most important phases of the audit of a construction contractor relates to estimated costs to complete contracts in process, since that information is used in determining the estimated final gross profit or loss on contracts. Estimated costs to complete involve expectations about future performance, and the auditor should (1) critically review representations of management, (2) obtain explanations of apparent disparities between estimates and past performance on contracts, experience on other contracts, and information gained in other phases of the audit, and (3) document the results of work in these areas. Because of the direct effect on the estimated interim and final gross profit or loss on the contract, the auditor should evaluate whether the contractor's estimate of cost to complete is reasonable. SAS No. 57, *Auditing Accounting Estimates*, provides guidance to auditors on obtaining and evaluating sufficient competent evidential matter to support significant accounting estimates in an audit of financial statements in accordance with generally accepted auditing standards.

10.34 The information that the auditor should consider using in the review of estimated costs to complete includes the following:

- The auditor's knowledge of the internal control structure, with particular emphasis on the auditor's assessment of control risk in areas such as estimating and bidding, project management and contract evaluation, contract costs, and claims, extras, and back charges, including a summary of the results of internal audits and a discussion of the contractor's historical experience.
- A comparison of costs incurred to date plus estimated cost to complete with the original bid estimate, along with explanations of unusual variances and changes in trends.
- A summary of work performed, to determine that actual or expected contract price and estimated costs to complete include price and quantity increases, penalties for termination or late completion, warranties or contract guarantees, and related items.
- A review of project engineers' reports and interim financial data, including reports and data issued after the balance sheet date, with explanations for unusual variances or changes in projections. Of particular importance would be a review of revised or updated estimates of cost to complete and a comparison of the estimates with the actual costs incurred after the balance sheet date.
- A review of information received from customers or other third parties in confirmations and in conversations about disputes, contract guarantees, and so forth that could affect total contract revenue and estimated cost to complete.
- Discussions with the contractor's engineering personnel and project managers who are familiar with, and responsible for, the contract in process.
- A review of the reports of independent architects and engineers.
- A review of information received from the contractor's attorney that relates to disputes and contingencies.

10.35 Not all the above types of evidence are available for all audits of all construction contractors. The auditor should consider the weight to be given to each type of evidence in forming an opinion. The auditor's objective is to test the overall reasonableness of the estimated cost to complete in the light of the information obtained from those and other available sources.

Income Recognition

10.36 The amount and timing of income recognized from contracts depend primarily on the methods and bases used to account for those contracts.[3] The auditor should satisfy himself that contracts are accounted for in accordance with the recommendations in the statement of position, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*, and that the recommendations are applied consistently to all like contracts and in all periods. To form an opinion on the reasonableness of the amount and timing of income recognized, the auditor should obtain an overview of costs and revenues by contract and should recognize that the audit emphasis should be on the audit of contracts.

10.37 The technological complexity or the nature of the contractor's work may require the auditor to consider using the work of independent specialists, such as engineers, architects, and attorneys, to obtain competent evidential matter in various phases of the audit. For example, on some complex contracts, the evaluation of the percentage of completion or the estimated cost to complete may require the use of a specialist. SAS No. 73, *Using the Work of a Specialist*, provides guidance in this area.

10.38 Anticipated losses on contracts, including contracts on which work has not started, should be recognized in full at the earliest date at which they are determinable. In addition, the contractor should consider the need to recognize other contract costs or revenue adjustments, such as guarantees or warranties, penalties for late completion, bonuses for early completion, unreimbursable costs under cost-plus contracts, and foreseeable losses arising from terminated contracts.

Evaluating the Acceptability of Income Recognition Methods

10.39 The auditor should be guided by the recommendations in paragraphs 21 to 42 of the SOP in evaluating the acceptability of a contractor's basic policy for income recognition. The audit procedures described in this and the preceding chapter are closely interrelated, and together they assist the auditor in satisfying himself in regard to the acceptability of the method of income recognition and the bases of applying that method. The procedures include all those previously discussed (review of contracts; consideration of the internal control structure, particularly as it relates to costs, and contract revenues; job site visits; and procedures applied in the audit of receivables, liabilities related to contracts, and contract costs) and the procedures discussed in this section on income recognition.

10.40 In evaluating the acceptability of the method used by a contractor, the auditor should satisfy himself that the contractor has followed the recom-

[3] The recommendations, usually stated in terms of contracts, also apply to a group of contracts and a segment of a contract in circumstances in which accounting for contracts on those bases is appropriate.

mendations in the SOP. The SOP recommends the use of the percentage-of-completion method as the basic accounting policy in circumstances in which reasonably dependable estimates can be made and in which the contracts generally meet the three conditions in paragraph 23 of the SOP. If contracts meet those conditions, a contractor generally is deemed able to make reasonably dependable estimates of contract revenue, contract costs, and the extent of progress toward completion. Normally, estimates in single amounts should be used as the basis of accounting for contracts under the percentage-of-completion method (paragraph 25(*a*) of the SOP). However, estimates based on ranges of amounts or on a breakeven or zero-profit basis are acceptable in circumstances described in paragraphs 25(*b*) and 25(*c*) of the SOP, but only if the use of estimates in single amounts is impractical. The auditor should satisfy himself that those recommendations have been reasonably applied.

10.41 Paragraphs 44 to 51 of the SOP discuss the considerations that should underlie the selection of a method of measuring the extent of progress toward completion under the percentage-of-completion method. The auditor should evaluate the methods used by the contractor in accordance with those considerations.

10.42 In evaluating the acceptability of the percentage-of-completion method as a contractor's basic accounting policy, as well as the acceptability of the basis used to measure the extent of progress toward completion, the auditor should consider procedures such as the following:

- Reviewing a selected sample of contracts to evaluate whether the contracts meet the basic conditions in paragraph 23 of the SOP for use of the percentage-of-completion method.
- Obtaining, reviewing, and evaluating documentation of estimates of contract revenues, costs, and the extent of progress toward completion for the selected sample of contracts.
- Consulting, if necessary, with independent engineers or independent architects.
- Obtaining and reviewing a representative sample of completed contracts to evaluate the quality of the contractor's original and periodic estimates of profit on those contracts.
- Obtaining a representation from management on the acceptability of the method.

10.43 If the contractor applies the percentage-of-completion method on the basis of estimates in terms of ranges or in terms of zero profit for any contracts, the auditor should obtain separate schedules for contracts accounted for on each of those bases and for contracts initially reported on those bases but changed to the normal basis during the period. For contracts in each of those categories, the auditor should consider procedures such as the following in evaluating the acceptability of those approaches to applying the percentage-of-completion method:

- For a selected sample of such contracts, obtaining documentation from management of the circumstances justifying the approaches.
- Discussing with management personnel and, if necessary, independent architects and engineers the reasonableness of the approaches used for the sample of contracts selected in each category.
- Obtaining representation from management on the circumstances justifying each of the approaches.

10.44 Paragraphs 31 to 33 of the SOP recommend the completed-contract method as the basic accounting policy "in circumstances in which financial position and results of operations would not vary materially from those resulting from use of the percentage-of-completion method." The completed-contract method should also be used in circumstances, described in paragraph 32 of the SOP, in which estimates cannot meet the criteria for dependability for use of the percentage-of-completion method or in which inherent hazards (see paragraphs 26 to 29 of the SOP) make estimates doubtful. In evaluating whether those circumstances exist, the auditor should consider the use of procedures such as the following:

- Reviewing the nature of the contractor's contracts and the period required to perform them.
- Obtaining a schedule of uncompleted contracts at the beginning and end of the period and evaluating whether the volume is significant in relation to the volume of contracts started and completed during the period.
- Estimating the effect of reporting on the percentage-of-completion basis and evaluating whether the results would produce a material difference in financial position or results of operations.

The Percentage-of-Completion Method

10.45 The auditor's objective in examining contracts accounted for by the percentage-of-completion method is to determine that the income recognized during the current period is based (1) on the total gross profit projected for the contract on completion and (2) on the work performed to date. The total gross profit expected from each contract is derived from an estimate of the final contract price less the total of contract costs to date and estimated cost to complete. The auditor tests those components in connection with other auditing procedures previously discussed.

10.46 The auditor should satisfy himself that, in relation to the nature of the contract, the method selected and used by the contractor to measure progress (such as measures based on architectural or engineering estimates, cost-to-cost, labor hours, machine hours, or units produced) produces a reasonable measurement of the work performed to date. Information obtained from job site visits may be particularly useful in reviewing costs incurred to date when the cost-to-cost method is used. Such information may point out the need to disregard certain costs (such as advance billings by subcontractors, cost of undelivered materials, or cost of uninstalled materials) in order to measure more accurately the work performed to date. Contract billings to customers may signify the percentage of completion if the contract provisions require that billings be associated with various stages of work performed on the contract.

10.47 The auditor should examine unbilled contract revenues to determine the reasons that they have not been billed. If such revenues relate to change orders or claims, the auditor should evaluate the collectibility of the change orders or claims.

The Completed-Contract Method

10.48 The objectives of the auditor in examining contracts accounted for by the completed-contract method are to determine (1) the proper amount and accounting period for recognition of the profit from completed contracts, (2) the amount of anticipated losses, if any, on uncompleted contracts that should be recognized in the current period, and (3) consistency in application of the method of determining completion.

10.49 The auditor should review events, contract costs, and contract billings subsequent to the end of the accounting period to obtain additional assurance that all contract revenues and related costs are included in the period in which the contracts are deemed to be substantially completed for income recognition purposes. A contract may be regarded as substantially completed, as a general rule, if remaining cost and potential risks are not significant in relation to the contract (see paragraph 52 of the SOP).

Combining and Segmenting

10.50 Income recognition in a given period may be significantly affected by the combining or segmenting of contracts. In the course of the audit the auditor may find that contracts have been, or in his opinion should have been, combined or segmented. The auditor should, therefore, evaluate the propriety of combining contracts or, conversely, segmenting components of a contract or a group of contracts in accordance with the criteria in paragraphs 35 to 42 of the SOP. In evaluating the propriety of combining a group of contracts and the propriety of segmenting a contract or a group of contracts, the auditor's major concern should be to obtain assurance that the gross profit on contracts is reported appropriately and consistently in accordance with the criteria in the statement of position. The auditor should consider procedures such as the following:

- Reviewing combined contracts to determine whether they meet the criteria in the statement of position and reviewing a representative sample of other contracts to determine if any other contracts meet those criteria.
- Reviewing contracts or groups of contracts that are reported on a segmented basis to determine whether they meet the criteria in paragraphs 39 to 42 of the SOP and whether the criteria are applied consistently.

Review of Earned Revenue

10.51 For significant contracts, the auditor should obtain and review workpaper schedules that summarize contract information from the contractor's books and records together with audit data arising from the audit of contract activity. The schedules are valuable because they permit an orderly analysis of the relationship of costs and revenues on a contract-by-contract basis. Illustrations of such schedules, prepared for fixed-price contracts accounted for by the percentage-of-completion method, are presented in exhibits 10.56 and 10.57.

10.52 The illustrations are based on the assumption that the contractor determines the stage of completion and adjusts his accounts accordingly. Even so, as demonstrated by the illustrations, the schedules enable the auditor to pinpoint the need for adjustments.

10.53 Similar, although less detailed, schedules should also be considered for significant cost-plus contracts in process and for significant contracts closed during the period.

Analysis of Gross Profit Margins

10.54 Finally, the auditor should consider analyzing gross profit margins on contracts and investigating and obtaining explanations for contracts with unusually high or low profit margins in the light of present and past experience on similar contracts. The auditor should consider a review of the original estimates of any contracts in question and a comparison of the results on those contracts for the current period with the results of prior periods. Procedures that should also be considered include comparison of profit margins recognized on open contracts with the final results on similar closed contracts and comparison of the final profit on closed contracts with the estimated profit on those contracts in the prior year.

10.55 The auditor should consider maintaining a summary of the historical information developed in the analysis for a reference in future audits.

Exhibit 10.56

XYZ Company, Inc.
Fixed-Price Contracts in Process
Summary of Original and Revised Contract Estimates
As of Balance Sheet Date

Contract Identification	Original Contract Price	Original Estimate of Contract Costs	Original Estimate of Gross Profit: Amount	Original Estimate of Gross Profit: %	Net Changes in Contract Price	Revised Contract Price	Revised Estimate of Contract Costs: Costs to Date	Revised Estimate of Contract Costs: Estimated Costs to Complete	Revised Estimate of Contract Costs: Revised Total Costs	Revised Estimate of Gross Profit: Amount	Revised Estimate of Gross Profit: %	% of Completion Measured by
	(1)	(2)	(2)	(2)	(3)		(4)	(5)				(6)
A	$100,000	$ 55,000	$ 45,000	45 %	0	$100,000	$ 42,000	$ 18,000	$ 60,000	$ 40,000	40 %	Cost to cost
B	130,000	110,000	20,000	15.4%	20,000	150,000	80,000	40,000	120,000	30,000	20 %	Cu.Yds.Completed
C	175,000	125,000	50,000	28.6%	25,000	200,000	125,000	75,000	200,000	0	—	Labor hours
D	250,000	200,000	50,000	20 %	150,000	400,000	270,000	330,000	600,000	(200,000)	—	Cost to cost

(1) Per original contract.
(2) Per original bid.
(3) Supported by change orders and/or claims meeting accounting criteria for inclusion.
(4) Per audit of contract costs.
(5) Per audit of estimated costs to complete.
(6) Reviewed for appropriateness and consistency.

Exhibit 10.57

XYZ Company, Inc.
Fixed-Price Contracts in Process
Analysis of Contract Status
As of Balance Sheet Date

	Per Contractor's Books and Records						Auditor's Adjustments				Adjusted Gross Profit					
					Gross Profit to Date						To Date		Prior Periods		Current Period	
Contract Identification	*Contract Billings to Date*	*Costs Incurred to Date*	*% Completed*	*Revenue Earned to Date*	*Amount*	*%*	*Revised % Completed*	*Revised Earned Revenue to Date*	*Revenue Adjustments*	*Provision for Projected Loss Adjustments*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*
	(1)	(2)	(3)	(4)			(5)	(6)	(7)	(7)	(8)	(8)	(9)	(9)	(8)	(8)
A	$ 80,000	$ 42,000	70%	$ 80,000	$ 38,000	47.5%	70 %	$ 70,000	($ 10,000)(A)		$ 28,000	40%	$ 20,250	45 %	$ 7,750	31 %
B	82,500	80,000	65%	97,500	17,500	17.9%	67 %	100,500	3,000 (B)		20,500	20%	8,500	18.9%	12,000	21.6%
C	150,000	125,000	55%	110,000	(15,000)	—	62.5%	125,000	15,000 (C)		0	—	28,600	28.6%	(28,600)	—
D	300,000	270,000	45%	300,000	30,000	10 %	45 %	180,000	(120,000)(A)	110,000(D)	(200,000)	—	—	—	(200,000)	—

(1) Per audit of contract billings.
(2) Per audit of contract costs.
(3) Management's estimate of completion.
(4) Per contract revenue accounts on books.
(5) Per auditor — based on review and analysis of costs, billings, management's estimate of completion, job-site visits, etc.
(6) Result of applying revised percentage of completion to revised contract price.
(7) Adjustments to be reviewed with and accepted by management.
(8) Should be compared with prior periods and with similar contracts.
(9) Per audit of prior periods.

(A) Adjustment necessary to reduce recorded earned revenue and recognize excess billings.
(B) Adjustment necessary to increase recorded earned revenue and recognize unbilled revenue.
(C) Adjustment necessary to increase recorded earned revenue and reduce recorded excess billings in order to reflect projected "break-even" on contract. Remaining revenue ($75,000) now equals estimated costs to complete.
(D) Adjustment necessary to provide for balance of the total projected loss on contract. Remaining revenue ($220,000) now equals estimated costs to complete ($330,000) less provision for projected loss ($110,000).

Review of Backlog Information on Signed Contracts and Letters of Intent

10.58 The accounting section of this guide encourages contractors to present in the basic financial statements backlog information for signed contracts whose cancellation is not expected, and it suggests that contractors may include additional backlog information on letters of intent and a schedule showing backlog at the beginning of the year, new contracts awarded during the year, revenue recognized during the year, and backlog at the end of the year (paragraph 6.23, "Backlog on Existing Contracts"). The presentation of such information would help users of the contractor's financial statements assess the contractor's current level of activity and prospects for maintaining that level of activity in future periods.

10.59 Information on signed contracts whose cancellation by the parties is not expected is within the scope of an audit of the contractor's financial statements. If a contractor elects to present backlog information on signed contracts in the basic financial statements, the auditor should review the information and evaluate its completeness in light of other audit procedures for contract receivables, contract-related liabilities, contract costs, and contract revenues. For that purpose the auditor should consider obtaining a schedule of all uncompleted signed contracts showing, for each contract, total estimated revenue, total estimated cost, earned revenue to date, costs incurred to date, and cost of earned revenue.

10.60 If a contractor elects to present backlog information for both signed contracts and letters of intent, the auditor's responsibility for the information is less clear because letters of intent are not normally within the scope of the audit of a contractor's financial statements. The auditor may, however, be able to satisfy himself regarding the completeness and reliability of the information on letters of intent. The auditor should consider obtaining a schedule of signed letters of intent, confirming the letters with customers, and reviewing their terms with the contractor's legal counsel.

10.61 As indicated in chapter 6 of this guide, the presentation of backlog information by a contractor is desirable only if a reasonably dependable determination of total revenue and a reasonably dependable estimate of total cost under signed contracts or letters of intent can be made, and the information on signed contracts should be segregated from the information on letters of intent.

Client Representations

10.62 The auditor should obtain written representations from management in accordance with the requirements of SAS No. 19, *Client Representations*. Some of the matters on which the auditor should consider obtaining written representations in the audit of the financial statements of a contractor include

- Method of income recognition used.
- Provisions for losses on contracts.
- Unapproved change orders, claims, and contract postponements or cancellations.
- Backlog information if presented in the financial statements.
- Joint venture participations and other related party transactions.

In addition to the foregoing items, the auditor should consider obtaining client representations on all the types of matters suggested in SAS No. 19 that are relevant to the engagement.

Chapter 11

Other Audit Considerations

11.01 This chapter addresses additional audit considerations that are essential in audits of construction contractors. They include affiliated entities, capitalization and cash flow, types of auditor's reports, and legal and regulatory requirements.

Affiliated Entities

11.02 In the construction industry, contractors frequently participate in joint ventures or have a direct or indirect affiliation with other entities and, as a consequence, are frequently involved in related party transactions as the term "related parties" is defined in FASB Statement No. 57, *Related Party Disclosures*. The prevalence of such arrangements in the industry can be attributed to factors such as legal liability, taxation, competition, ownership and operating arrangements, labor and labor union considerations, and regulatory requirements. Auditing and reporting considerations appropriate in the circumstances are discussed in this section.

Participation in Joint Ventures

11.03 The auditor should review a contractor's participations in joint ventures to evaluate whether investments in joint ventures are reported in accordance with the recommendations in chapter 3 of this guide. The following are among the factors that the auditor should consider:

- The method or methods of reporting joint venture investments.
- The nature of capital contributions and the methods of recording capital contributions.
- The timeliness of the available financial statements of joint ventures in relation to those of the reporting investor.
- The appropriateness of the accounting for joint venture losses that exceed a contractor's loans and investments.
- The adequacy of joint-venture-related disclosures in the contractor's financial statements.

11.04 The auditor should review joint venture agreements and should document a contractor's participation. For corporate joint ventures, the documentation should consist of information such as the following:

- Capital contributions and funding requirements of the venture participants.
- Ownership percentages.
- Profit or loss participation ratios.
- Duration of the venture.
- Performance requirements of the venture participants.

11.05 The audit considerations for a contractor's participation in a partnership (for example, in a real estate tax shelter partnership) are similar to those for participation in corporate joint ventures. They may differ primarily in relation to the contractor's unlimited liability as a general partner for partnership obligations.

11.06 For partnership interests, the auditor's documentation should contain information such as the following:

- The extent and nature of fees and other amounts to be paid by the partnership to the contractor and the conditions and events that would require such payments.
- The contractor's obligations to the partnership for capital contributions and other funding.
- Performance and other requirements of the contractor as a general partner and specified penalties for nonperformance, if any.
- Profit participation ratios of the partners and events or conditions that change such ratios.
- The duration of the partnership.

11.07 The auditor should assess the economic and tax incentives underlying the creation of the partnership, the events requiring capital contribution installments by limited partners, and temporary and permanent financing arrangements and related costs. The auditor should also assess the extent of actual and contingent obligations that arise from the contractor's role as a general partner. To that end, the auditor should review the financial condition of the other general partners and their ability to participate in the funding of required capital contributions, partnership obligations, and partnership losses, if any. The inability of other general partners to provide their share of such funding may require the contractor to recognize additional obligations based on the contractor's legal liability as a general partner for all partnership obligations.

11.08 For any type of venture, the auditor should consider the nature of the venture, the scope of its operations, and the extent of involvement of each participant, and he should obtain financial statements of the venture entity for the period under review. If the financial statements of the venture are audited by another auditor, the principal auditor should be guided by the provisions of section 543 of SAS No. 1, *Part of Audit Performed by Other Independent Auditors*. If the venture's financial statements are unaudited, the principal auditor should perform such procedures as he deems necessary in the circumstances. In selecting such procedures, the auditor should be guided by the provisions of section 332 of SAS No. 1, *Long-Term Investments*, which furnishes guidance in applying generally accepted auditing standards to audits of the financial statements of companies with long-term investments accounted for under either the cost method or the equity method. If for any reasons such procedures cannot be performed, the auditor should evaluate the effect of such a scope limitation on the opinion to be expressed on the contractor's financial statements.

Auditing Affiliated Companies and Related Party Transactions

11.09 An auditor engaged to audit one of a group of affiliated companies that comprises an economic unit may find that an examination of the records of that entity does not satisfy him in regard to such aspects as substance, nature, business purpose, and transfer prices of significant transactions between the parties. The auditor should be guided by SAS No. 45, *Omnibus Statement on Auditing Standards—1983*, "Related Parties," in identifying and reporting on related party transactions. The auditor must exercise judgment and take into consideration all pertinent factors in each case. Consolidated or combined financial statements in place of, or supplementary to, the separate financial statements of the entity being audited may sometimes be necessary to present the financial position, results of operations, and cash flows of the entity being audited in accordance with the recommendations in chapter 4 of this guide.

Capitalization and Cash Flow

11.10 Contractors often follow practices that accelerate the cash collections to be generated from a contract. The practices include the use of unbalanced bids and other front-end loading procedures that allocate a relatively larger portion of the total contract price to phases of work likely to be completed in early stages of the contract than to phases likely to be completed later. Also, overestimating the percentage of work completed in computing billings on contracts may have a similar effect on cash collections.

11.11 If a contractor incurs substantial losses on contracts that have been front-end loaded, a cash deficiency toward the end of those contracts may be experienced. The deficiency may prevent the contractor from meeting current obligations, and the contractor may have to front-end load new contracts to generate funds to meet those obligations. The necessity to generate cash may cause the contractor to accept jobs that are only marginally profitable.

11.12 Therefore, the auditor should review uncompleted contracts not only to assess the adequacy of provisions for losses in the current period but also to determine the effect of projected cash receipts and payments on the contractor's cash position and ability to meet current obligations.

Types of Auditor's Reports

11.13 In most situations, the auditor, through normal or extended audit procedures, should be able to obtain sufficient competent evidence that a contractor's accounts are presented in accordance with generally accepted accounting principles to issue an unqualified opinion. Normally, the auditor should apply extended audit procedures to resolve reservations that arise in any area of the audit. However, scope limitations or major reservations that cannot be resolved to the auditor's satisfaction by the use of extended audit procedures require the auditor to issue a modified report or to disclaim an opinion as appropriate in the circumstances. The following are examples of situations in which the auditor should consider not issuing a standard report:

- The auditor is unable to evaluate the propriety or collectibility of significant amounts of contract revenue related to claims. Those circumstances may require the auditor to issue a qualified opinion or to disclaim an opinion, depending on the particular circumstances.
- A contractor does not maintain detailed cost records by contract, and the auditor is unable to perform extended auditing procedures to obtain sufficient competent evidence that the data purporting to represent accumulated costs to date are reasonably correct. In this situation, the auditor may be required to issue a modified opinion.
- A company has cash problems because of undercapitalization or because losses have eroded its net worth and threaten its ability to continue to operate as a viable entity. In such a situation, the auditor should include an explanatory paragraph (following the opinion paragraph) in his or her report if he or she concludes that there is substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time.

Legal and Regulatory Considerations

State Statutes Affecting Construction Contractors

11.14 The auditor should be aware of the existence in some states of "lien" laws. Those laws vary from state to state but generally provide that funds received or receivable by a contractor constitute trust funds that may only be used to pay specified contract-related costs. The auditor should review with the contractor and his counsel the applicable statute in each state in which the contractor operates to evaluate whether amounts that constitute trust funds under those statutes have been properly applied. Other state statutes may also have audit or disclosure requirements. The auditor should consider such statutes in the performance of an audit and in the evaluation of the adequacy of financial statement disclosures. SAS No. 54, *Illegal Acts by Clients*, provides guidance on the nature and extent of the consideration an auditor should give to the possibility of illegal acts by a client in an audit of financial statements in accordance with generally accepted auditing standards.

Governmental Prequalification Reporting

11.15 Contractors are often required to file reports with agencies of the federal, state, or county governments in order to qualify for bidding on or performing work for such agencies. The report format required by the regulatory agencies frequently includes preprinted auditors' reports, which differ from reports issued in conformity with generally accepted auditing standards. Paragraphs 32 and 33 of SAS No. 62, *Special Reports*, specify the steps an auditor should consider in those circumstances. A suggested form of auditor's report that could be substituted for the preprinted report in the regulatory filing form follows:

Independent Auditor's Report

We have audited the accompanying statement of assets, liabilities, and surplus of XYZ Company as of December 31, 19XX, and the related statements of income and changes in surplus for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The accompanying financial statements were prepared for the purpose of state construction prequalification filings on the basis of accounting practices prescribed by the state in which filed as described in Note X and are not intended to be a presentation in conformity with generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets, liabilities and surplus of XYZ Company as of [at] December 31, 19XX, and its income and changes in surplus for the year then ended, on the basis of accounting described in Note X.

This report is intended solely for filing with regulatory agencies and should not be used for any other purposes.

* * *

Note X. It is the policy of the company to prepare financial statements intended solely for a state authority on the basis prescribed by that state authority. This report has been prepared for (*name of state authority*) on the basis prescribed by them. This basis differs from generally accepted accounting principles in the following respects:

1. A statement of cash flows is not included.
2. ______________________
3. ______________________
4. ______________________

Appendix A

Statement of Position 81-1

Accounting for Performance of Construction-Type and Certain Production-Type Contracts

July 15, 1981

Proposal to the
Financial Accounting Standards Board

Issued by the
Accounting Standards Division
American Institute of
Certified Public Accountants

NOTICE TO READERS

Statements of Position of the Accounting Standards Division present the conclusions of at least a majority of the Accounting Standards Executive Committee, which is the senior technical body of the AICPA authorized to speak for the Institute in the areas of financial accounting and reporting. Statement on Auditing Standards No. 69, *The Meaning of* Present Fairly in Conformity With Generally Accepted Accounting Principles in the *Independent Auditor's Report,* identifies AICPA Statements of Position as sources of established accounting principles that an AICPA member should consider if the accounting treatment of a transaction or event is not specified by a pronouncement covered by Rule 203 of the AICPA Code of Professional Conduct. In such circumstances, the accounting treatment specified by this Statement of Position should be used or the member should be prepared to justify a conclusion that another treatment better presents the substance of the transaction in the circumstances. However, an entity need not change an accounting treatment followed as of March 15, 1992 to the accounting treatment specified in this Statement of Position.

TABLE OF CONTENTS

Accounting for Performance of Construction-Type and Certain Production-Type Contracts

Introduction

1. This statement of position provides guidance on the application of generally accepted accounting principles in accounting for the performance of contracts for which specifications are provided by the customer for the construction of facilities or the production of goods or for the provision of related services. Changes in the business environment have increased significantly the variety and uses of those types of contracts and the types of business enterprises that use them. In the present business environment, diverse types of contracts, ranging from relatively simple to highly complex and from relatively short-to long-term, are widely used in many industries for construction, production, or provision of a broad range of goods and services. However, existing principles related to accounting for contracts were written in terms of long-term construction-type contracts, and they are not stated in sufficient detail for the scope of activities to which they presently are applied. Those activities range far beyond the traditional construction-type activity (the design and physical construction of facilities such as buildings, roads, dams, and bridges) to include, for example, the development and production of military and commercial aircraft, weapons delivery systems, space exploration hardware, and computer software. The accounting standards division believes that guidance is now needed in this area of accounting.

The Basic Accounting Issue

2. The determination of the point or points at which revenue should be recognized as earned and costs should be recognized as expenses is a major accounting issue common to all business enterprises engaged in the performance of contracts of the types covered by this statement. Accounting for such contracts is essentially a process of measuring the results of relatively long-term events and allocating those results to relatively short-term accounting periods. This involves considerable use of estimates in determining revenues, costs, and profits and in assigning the amounts to accounting periods. The process is complicated by the need to evaluate continually the uncertainties inherent in the performance of contracts and by the need to rely on estimates of revenues, costs, and the extent of progress toward completion.

Present Accounting Requirements and Practices

3. The pervasive principle of realization and its exceptions and modifications are central factors underlying accounting for contracts. Accounting Principles Board (APB) Statement No. 4* states:

> Revenue is generally recognized when both of the following conditions are met: (1) the earnings process is complete or virtually complete, and (2) an exchange has taken place. [Paragraph 150]
>
> Revenue is sometimes recognized on bases other than the realization rule. For example, on long-term construction contracts revenue may be recognized as construction progresses. This exception to the realization principle is based on

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* Statement of Position 93-3, *Rescission of Accounting Principles Board Statements*, rescinds APB Statement No. 4. FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*, discusses matters similar to those in APB Statement No. 4.

> the availability of evidence of the ultimate proceeds and the consensus that a better measure of periodic income results. [Paragraph 152]
>
> The exception to the usual revenue realization rule for long-term construction-type contracts, for example, is justified in part because strict adherence to realization at the time of sale would produce results that are considered to be unreasonable. The judgment of the profession is that revenue should be recognized in this situation as construction progresses. [Paragraph 174]

4. Accounting Research Bulletin No. 45 (ARB 45), *Long-Term Construction-Type Contracts*, issued by the AICPA Committee on Accounting Procedure in 1955, describes the two generally accepted methods of accounting for long-term construction-type contracts for financial reporting purposes:

- *The percentage-of-completion method* recognizes income as work on a contract progresses; recognition of revenues and profits generally is related to costs incurred in providing the services required under the contract.
- *The completed-contract method* recognizes income only when the contract is completed, or substantially so, and all costs and related revenues are reported as deferred items in the balance sheet until that time.

The units-of-delivery is a modification of the percentage-of-completion method of accounting for contracts.

- *The units-of-delivery method* recognizes as revenue the contract price of units of a basic production product delivered during a period and as the cost of earned revenue the costs allocable to the delivered units; costs allocable to undelivered units are reported in the balance sheet as inventory or work in progress. The method is used in circumstances in which an entity produces units of a basic product under production-type contracts in a continuous or sequential production process to buyers' specifications.

The use of either of the two generally accepted methods of accounting involves, to a greater or lesser extent, three key areas of estimates and uncertainties: (*a*) the extent of progress toward completion, (*b*) contract revenues, and (*c*) contract costs. Although the ultimate amount of contract revenue is often subject to numerous uncertainties, the accounting literature has given little attention to the difficulties of estimating contract revenue.

5. ARB 45, paragraph 15, describes the circumstances in which each method is preferable as follows:

> The committee believes that in general when estimates of costs to complete and extent of progress toward completion of long-term contracts are reasonably dependable, the percentage-of-completion method is preferable. When lack of dependable estimates or inherent hazards cause forecasts to be doubtful, the completed-contract method is preferable.

Both of the two generally accepted methods are widely used in practice. However, the two methods are frequently applied differently in similar circumstances. The division believes that the two methods should be used in specified circumstances and should not be used as acceptable alternatives for the same circumstances. Accordingly, identifying the circumstances in which either of the methods is preferable and the accounting that should be followed in the application of those methods are among the primary objectives of this statement of position. This statement provides guidance on the application of ARB 45 and does not amend that bulletin.

6. In practice, methods are sometimes found that allocate contract costs and revenues to accounting periods on (*a*) the basis of cash receipts and payments or (*b*) the basis of contract billings and costs incurred. Those practices are not generally accepted methods of accounting for financial reporting purposes. However, those methods are appropriate for other purposes, such as the measurement of income for income tax purposes, for which the timing of cash transactions is a controlling factor. Recording the amounts billed or billable on a contract during a period as contract revenue of the period, and the costs incurred on the contract as expenses of the period, is not acceptable for financial reporting purposes because the amounts billed or billable on a contract during a period are determined by contract terms and do not necessarily measure performance on the contract. Only by coincidence might those unacceptable methods produce results that approximate the results of the generally accepted method of accounting for contracts that are appropriate in the circumstances.

Other Pronouncements and Regulations Affecting Contract Accounting

7. Accounting Research Bulletin No. 43, *Restatement and Revision of Accounting Research Bulletins*, chapter 11, "Government Contracts," prescribes generally accepted principles in three areas of accounting for government contracts. Section A of that chapter deals with accounting problems arising under cost-plus-fixed-fee contracts. Section B deals with certain aspects of the accounting for government contracts and subcontracts that are subject to renegotiation. Section C deals with problems involved in accounting for certain terminated war and defense contracts. Those pronouncements govern accounting for contracts in the areas indicated.

8. The pricing and costing of federal government contracts are governed by cost principles contained in procurement regulations such as the Federal Procurement Regulation (FPR) and the Defense Acquisition Regulation (DAR). Also, most major government contractors are subject to cost accounting standards issued by the Cost Accounting Standards Board (CASB). CASB standards apply to the cost accounting procedures that government contractors use to allocate costs to contracts; CASB standards are not intended for financial reporting.

9. Accounting for contracts for income tax purposes is prescribed by the Internal Revenue Code and the related rules and regulations. The methods of accounting for contracts under those requirements are not limited to the two generally accepted methods for financial reporting. For numerous historical and practical reasons, tax accounting rules and regulations differ from generally accepted accounting principles. Numerous nonaccounting considerations are appropriate in determining income tax accounting. This statement deals exclusively with the application of generally accepted accounting principles to accounting for contracts in financial reporting. It does not apply to income tax accounting and is not intended to influence income tax accounting.

Need for Guidance

10. Because of the complexities and uncertainties in accounting for contracts, the increased use of diverse types of contracts for the construction of facilities, the production of goods, or the provision of related services, and present conditions and practices in industries in which contracts are performed for those purposes, additional guidance on the application of generally accepted accounting principles is needed. This statement of position provides that guidance. Appendix A contains a schematic chart showing the organization of the statement.

Scope of Statement of Position

11. This statement of position applies to accounting for performance of contracts for which specifications are provided by the customer for the construction of facilities or the production of goods or the provision of related services that are reported in financial statements prepared in conformity with generally accepted accounting principles.[1] Existing authoritative accounting literature uses the terms "long-term" and "construction-type" in identifying the types of contracts that are the primary focus of interest. The term "long-term" is not used in this statement of position as an identifying characteristic because other characteristics are considered more relevant for identifying the types of contracts covered. However, accounting for contracts by an entity that primarily has relatively short-term contracts is recommended in paragraph 31 of this statement. The scope of the statement is not limited to construction-type contracts.

Contracts Covered

12. Contracts covered by this statement of position are binding agreements between buyers and sellers in which the seller agrees, for compensation, to perform a service to the buyer's specifications.[2] Contracts consist of legally enforceable agreements in any form and include amendments, revisions, and extensions of such agreements. Performance will often extend over long periods, and the seller's right to receive payment depends on his performance in accordance with the agreement. The service may consist of designing, engineering, fabricating, constructing, or manufacturing related to the construction or the production of tangible assets. Contracts such as leases and real estate agreements, for which authoritative accounting literature provides special methods of accounting, are not covered by this statement.

13. Contracts covered by this statement include, but are not limited to, the following:

- Contracts in the construction industry, such as those of general building, heavy earth moving, dredging, demolition, design-build contractors, and specialty contractors (for example, mechanical, electrical, or paving).
- Contracts to design and build ships and transport vessels.
- Contracts to design, develop, manufacture, or modify complex aerospace or electronic equipment to a buyer's specification or to provide services related to the performance of such contracts.
- Contracts for construction consulting service, such as under agency contracts or construction management agreements.
- Contracts for services performed by architects, engineers, or architectural or engineering design firms.

14. Contracts not covered by this statement include, but are not limited to, the following:

- Sales by a manufacturer of goods produced in a standard manufacturing operation, even if produced to buyers' specifications, and sold in the ordinary course of business through the manufacturer's regular

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[1] This statement is not intended to apply to "service transactions" as defined in the FASB's October 23, 1978 Invitation to Comment, *Accounting for Certain Service Transactions.* However, it applies to separate contracts to provide services essential to the construction or production of tangible property, such as design, engineering, procurement, and construction management (see paragraph 13 for examples).

[2] Specifications imposed on the buyer by a third party (for example, a government or regulatory agency or a financial institution) or by conditions in the marketplace are deemed to be "buyer's specifications."

marketing channels if such sales are normally recognized as revenue in accordance with the realization principle for sales of products and if their costs are accounted for in accordance with generally accepted principles of inventory costing.

- Sales or supply contracts to provide goods from inventory or from homogeneous continuing production over a period of time.
- Contracts included in a program and accounted for under the program method of accounting. For accounting purposes, a program consists of a specified number of units of a basic product expected to be produced over a long period in a continuing production effort under a series of existing and anticipated contracts.[3]
- Service contracts of health clubs, correspondence schools, and similar consumer-oriented organizations that provide their services to their clients over an extended period.
- Magazine subscriptions.
- Contracts of nonprofit organizations to provide benefits to their members over a period of time in return for membership dues.

15. Contracts covered by this statement may be classified into four broad types based on methods of pricing: (*a*) fixed-price or lump-sum contracts, (*b*) cost-type (including cost-plus) contracts, (*c*) time-and-material contracts, and (*d*) unit-price contracts. A fixed-price contract is an agreement to perform all acts under the contract for a stated price. A cost-type contract is an agreement to perform under a contract for a price determined on the basis of a defined relationship to the costs to be incurred, for example, the costs of all acts required plus a fee, which may be a fixed amount or a fixed percentage of the costs incurred. A time-and-material contract is an agreement to perform all acts required under the contract for a price based on fixed hourly rates for some measure of the labor hours required (for example, direct labor hours) and the cost of materials. A unit-price contract is an agreement to perform all acts required under the contract for a specified price for each unit of output. Each of the various types of contracts may have incentive, penalty, or other provisions that modify their basic pricing terms. The pricing features of the various types are discussed in greater detail in Appendix B.

Definition of a Contractor

16. The term "contractor" as used in this statement refers to a person or entity that enters into a contract to construct facilities, produce goods, or render services to the specifications of a buyer either as a general or prime contractor, as a subcontractor to a general contractor, or as a construction manager.

Definition of a Profit Center

17. For the purpose of this statement, a "profit center" is the unit for the accumulation of revenues and costs and the measurement of income. For business enterprises engaged in the performance of contracts, the profit center for accounting purposes is usually a single contract; but under some specified circumstances it may be a combination of two or more contracts, a segment of a contract or of a group of combined contracts. This statement of position provides guidance on the selection of the appropriate profit center. The accounting recommendations, usually stated in terms of a single contract, also apply to alternative profit centers in circumstances in which alternative centers are appropriate.

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[3] Footnote deleted.

Application and Effect on Existing Audit Guides and SOPs

18. This statement of position presents the division's recommendations on accounting for contracts (as specified in paragraphs 11 to 17) in all industries. The recommendations in this statement need not be applied to immaterial items. Two existing AICPA Audit and Accounting Guides, *Construction Contractors* and *Audits of Federal Government Contractors,* provide additional guidance on the application of generally accepted accounting principles to the construction industry and to federal government contracts, respectively. The recommendations in this statement take precedence in those areas.

19. The guidance on contract accounting and financial reporting in *Audits of Federal Government Contractors* is essentially consistent with the recommendations in this statement. Since the recommendations in this statement provide more comprehensive and explicit guidance on the application of generally accepted accounting principles to contract accounting than does the guide, *Audits of Federal Government Contractors*, the guide incorporates this statement as an appendix. The provisions of that guide should be interpreted and applied in the context of the recommendations in this statement.

20. This statement is not intended to supersede recommendations on accounting in other AICPA industry accounting or audit guides or in other statements of position.

The Division's Conclusions

Determining a Basic Accounting Policy for Contracts

21. In accounting for contracts, the basic accounting policy decision is the choice between the two generally accepted methods: the percentage-of-completion method including units of delivery and the completed-contract method. The determination of which of the two methods is preferable should be based on a careful evaluation of circumstances because the two methods should not be acceptable alternatives for the same circumstances. The division's recommendations on basic accounting policy are set forth in the sections on "The Percentage-of-Completion Method" and "The Completed-Contract Method," which identify the circumstances appropriate to the methods, the bases of applying the methods, and the reasons for the recommendations. The recommendations apply to accounting for individual contracts and to accounting for other profit centers in accordance with the recommendations in the section on "Determining the Profit Center." As a result of evaluating individual contracts and profit centers, a contractor should be able to establish a basic policy that should be followed in accounting for most of his contracts. In accordance with the requirements of APB Opinion No. 22, *Disclosure of Accounting Policies,* a contractor should disclose in the note to the financial statements on accounting policies the method or methods of determining earned revenue and the cost of earned revenue including the policies relating to combining and segmenting, if applicable. Appendix C contains a summary of the disclosure requirements in this statement.

The Percentage-of-Completion Method

22. This section sets forth the recommended basis for using the percentage-of-completion method and the reasons for the recommendation. Under most contracts for construction of facilities, production of goods, or provision of related services to a buyer's specifications, both the buyer and the seller (contractor) obtain enforceable rights. The legal right of the buyer to require specific performance of the contract means that the contractor has, in effect, agreed to sell his rights to work-in-progress as the work progresses. This view is consistent with the contractor's legal rights; he typically has no ownership claim to the work-in-progress but has lien rights. Furthermore, the contractor has the right to require the buyer, under most financing arrangements, to make progress payments to support his ownership investment and to approve the facilities constructed (or goods produced or services performed) to date if they meet the contract requirements. The buyer's right to take over the work-in-progress at his option (usually with a penalty) provides additional evidence to support that view. Accordingly, the business activity taking place supports the concept that in an economic sense performance is, in effect, a continuous sale (transfer of ownership rights) that occurs as the work progresses. Also under most contracts for the production of goods and the provision of related services that are accounted for on the basis of units delivered, both the contractor and the customer obtain enforceable rights as the goods are produced or the services are performed. As units are delivered, title to and the risk of loss on those units normally transfer to the customer, whose acceptance of the items indicates that they meet the contractual specifications. For such contracts, delivery and acceptance are objective measurements of the extent to which the contracts have been performed. The percentage-of-completion method recognizes the legal and economic results of contract performance on a timely basis. Financial statements based on the percentage-of-completion method present the economic substance of a company's transactions and events more clearly and more timely than financial statements based on the completed-contract method, and they present more accurately the relationships between gross profit from contracts and related period costs. The percentage-of-completion method informs the users of the general purpose financial statements of the volume of economic activity of a company.

Circumstances Appropriate to the Method

23. The use of the percentage-of-completion method depends on the ability to make reasonably dependable estimates. For the purposes of this statement, "the ability to make reasonably dependable estimates" relates to estimates of the extent of progress toward completion, contract revenues, and contract costs. The division believes that the percentage-of-completion method is preferable as an accounting policy in circumstances in which reasonably dependable estimates can be made and in which all the following conditions exist:

- Contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
- The buyer can be expected to satisfy his obligations under the contract.
- The contractor can be expected to perform his contractual obligations.

24. For entities engaged on a continuing basis in the production and delivery of goods or services under contractual arrangements and for whom contracting represents a significant part of their operations, the presumption is that they have the ability to make estimates that are sufficiently dependable to justify the use of the percentage-of-completion method of accounting.[4] Persuasive evidence to the contrary is necessary to overcome that presumption.

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[4] The division recognizes that many contractors have informal estimating procedures that may result in poorly documented estimates and marginal quality field reporting and job costing systems. Those conditions may influence the ability of an entity to produce reasonably dependable estimates. However, procedures and systems should not influence the development of accounting principles and should be dealt with by management as internal control, financial reporting, and auditing concerns.

The ability to produce reasonably dependable estimates is an essential element of the contracting business. For a contract on which a loss is anticipated, generally accepted accounting principles require recognition of the entire anticipated loss as soon as the loss becomes evident. An entity without the ability to update and revise estimates continually with a degree of confidence could not meet that essential requirement of generally accepted accounting principles.

25. Accordingly, the division believes that entities with significant contracting operations generally have the ability to produce reasonably dependable estimates and that for such entities the percentage-of-completion method of accounting is preferable in most circumstances. The method should be applied to individual contracts or profit centers, as appropriate.

a. Normally, a contractor will be able to estimate total contract revenue and total contract cost in single amounts. Those amounts should normally be used as the basis for accounting for contracts under the percentage-of-completion method.

b. For some contracts, on which some level of profit is assured, a contractor may only be able to estimate total contract revenue and total contract cost in ranges of amounts. If, based on the information arising in estimating the ranges of amounts and all other pertinent data, the contractor can determine the amounts in the ranges that are most likely to occur, those amounts should be used in accounting for the contract under the percentage-of-completion method. If the most likely amounts cannot be determined, the lowest probable level of profit in the range should be used in accounting for the contract until the results can be estimated more precisely.

c. However, in some circumstances, estimating the final outcome may be impractical except to assure that no loss will be incurred. In those circumstances, a contractor should use a zero estimate of profit; equal amounts of revenue and cost should be recognized until results can be estimated more precisely. A contractor should use this basis only if the bases in (*a*) or (*b*) are clearly not appropriate. A change from a zero estimate of profit to a more precise estimate should be accounted for as a change in an accounting estimate.

An entity using the percentage-of-completion method as its basic accounting policy should use the completed-contract method for a single contract or a group of contracts for which reasonably dependable estimates cannot be made or for which inherent hazards make estimates doubtful. Such a departure from the basic policy should be disclosed.

Nature of Reasonable Estimates and Inherent Hazards

26. In practice, contract revenues and costs are estimated in a wide variety of ways ranging from rudimentary procedures to complex methods and systems. Regardless of the techniques used, a contractor's estimating procedures should provide reasonable assurance of a continuing ability to produce reasonably dependable estimates.[5] Ability to estimate covers more than the estimat-

[5] The type of estimating procedures appropriate in a particular set of circumstances depends on a careful evaluation of the costs and benefits of developing the procedures. The ability to produce reasonably dependable estimates that would justify the use of the percentage-of-completion method as recommended in paragraph 25 does not depend on the elaborateness of the estimating procedures used.

ing and documentation of contract revenues and costs; it covers a contractor's entire contract administration and management control system. The ability to produce reasonably dependable estimates depends on all the procedures and personnel that provide financial or production information on the status of contracts. It encompasses systems and personnel not only of the accounting department but of all areas of the company that participate in production control, cost control, administrative control, or accountability for contracts. Previous reliability of a contractor's estimating process is usually an indication of continuing reliability, particularly if the present circumstances are similar to those that prevailed in the past.

27. Estimating is an integral part of contractors' business activities, and there is a necessity to revise estimates on contracts continually as the work progresses. The fact that circumstances may necessitate frequent revision of estimates does not indicate that the estimates are unreliable for the purpose for which they are used. Although results may differ widely from original estimates because of the nature of the business, the contractor, in the conduct of his business, may still find the estimates reasonably dependable. Despite these widely recognized conditions, a contractor's estimates of total contract revenue and total contract costs should be regarded as reasonably dependable if the minimum total revenue and the maximum total cost can be estimated with a sufficient degree of confidence to justify the contractor's bids on contracts.

28. ARB 45 discourages the use of the percentage-of-completion method of accounting in circumstances in which inherent hazards make estimates doubtful. "Inherent hazards" relate to contract conditions or external factors that raise questions about contract estimates and about the ability of either the contractor or the customer to perform his obligations under the contract. Inherent hazards that may cause contract estimates to be doubtful usually differ from inherent business risks. Business enterprises engaged in contracting, like all business enterprises, are exposed to numerous business risks that vary from contract to contract. The reliability of the estimating process in contract accounting does not depend on the absence of such risks. Assessing business risks is a function of users of financial statements.

29. The present business environment and the refinement of the estimating process have produced conditions under which most business entities engaged in contracting can deal adequately with the normal, recurring business risks in estimating the outcome of contracts. The division believes that inherent hazards that make otherwise reasonably dependable contract estimates doubtful involve events and conditions that would not be considered in the ordinary preparation of contract estimates and that would not be expected to recur frequently, given the contractor's normal business environment. Such hazards are unrelated to, or only incidentally related to, the contractor's typical activities. Such hazards may relate, for example, to contracts whose validity is seriously in question (that is, which are less than fully enforceable), to contracts whose completion may be subject to the outcome of pending legislation or pending litigation, or to contracts exposed to the possibility of the condemnation or expropriation of the resulting properties. Reasonably dependable estimates cannot be produced for a contract with unrealistic or ill-defined terms or for a contract between unreliable parties. However, the conditions stated in paragraph 23 for the use of the percentage-of-completion method of accounting, which apply to most bona fide contracts, make the existence of some uncertainties, including some of the type described in ARB 45, paragraph 15, unlikely for contracts that meet those conditions. Therefore, the division believes that there should be specific, persuasive evidence of such hazards to indicate that use of the percentage-of-completion method on one of the bases in paragraph 25 is not preferable.

The Completed-Contract Method

30. This section sets forth the recommended basis for using the completed-contract method and the reasons for the recommendation. Under the completed-contract method, income is recognized only when a contract is completed or substantially completed. During the period of performance, billings and costs are accumulated on the balance sheet, but no profit or income is recorded before completion or substantial completion of the work. This method precludes reporting on the performance that is occurring under the enforceable rights of the contract as work progresses. Although the completed-contract method is based on results as finally determined rather than on estimates for unperformed work, which may involve unforeseen costs and possible losses, it does not reflect current performance when the period of a contract extends beyond one accounting period, and it therefore may result in irregular recognition of income. Financial statements based on this method may not show informative relationships between gross profit reported on contracts and related period costs.

Circumstances of Use

31. The completed-contract method may be used as an entity's basic accounting policy in circumstances in which financial position and results of operations would not vary materially from those resulting from use of the percentage-of-completion method (for example, in circumstances in which an entity has primarily short-term contracts). Although this statement does not formally distinguish on the basis of length between long-term and short-term contracts, the basis for recording income on contracts of short duration poses relatively few problems. In accounting for such contracts, income ordinarily is recognized when performance is substantially completed and accepted. Under those circumstances, revenues and costs in the aggregate for all contracts would be expected to result in a matching of gross profit with period overhead or fixed costs similar to that achieved by use of the percentage-of-completion method. For example, the completed-contract method, as opposed to the percentage-of-completion method, would not usually produce a material difference in net income or financial position for a small plumbing contractor that performs primarily relatively short-term contracts during an accounting period; performance covers such a short span of time that the work is somewhat analogous to the manufacture of shelf production items for sale. An entity using the completed-contract method as its basic accounting policy should depart from that policy for a single contract or a group of contracts not having the features described in this paragraph and use the percentage-of-completion method on one of the bases described in paragraph 25. Such a departure should be disclosed.

32. The completed-contract method is preferable in circumstances in which estimates cannot meet the criteria for reasonable dependability discussed in the section on the percentage-of-completion method or in which there are inherent hazards of the nature of those discussed in that section. An entity using the percentage-of-completion method as its basic accounting policy should depart from that policy and use the completed-contract method for a single contract or a group of contracts only in the circumstances described in paragraph 25.

33. The use of the completed-contract method is recommended for the circumstances described in paragraphs 31 and 32. However, for circumstances in which there is an assurance that no loss will be incurred on a contract (for example, when the scope of the contract is ill-defined but the contractor is protected by a costplus contract or other contractual terms), the percentage-of-completion method based on a zero profit margin, rather than the completed-contract method, is recommended until more precise estimates can be made. The significant difference between the percentage-of-completion method applied on the basis of a zero profit margin and the completed-contract method relates to the effects on the income statement. Under the zero profit margin approach to applying the percentage-of-completion method, equal amounts of revenue and cost, measured on the basis of performance during the period, are presented in the income statement; whereas, under the completed-contract method, performance for a period is not reflected in the income statement, and no amount is presented in the income statement until the contract is completed. The zero profit margin approach to applying the percentage-of-completion method gives users of general purpose financial statements an indication of the volume of a company's business and of the application of its economic resources.

Determining the Profit Center

34. The basic presumption should be that each contract is the profit center for revenue recognition, cost accumulation, and income measurement. That presumption may be overcome only if a contract or a series of contracts meets the conditions described for combining or segmenting contracts. A group of contracts (combining), and a phase or segment of a single contract or of a group of contracts (segmenting) may be used as a profit center in some circumstances. Since there are numerous practical implications of combining and segmenting contracts, evaluation of the circumstances, contract terms, and management intent are essential in determining contracts that may be accounted for on those bases.

Combining Contracts

35. A group of contracts may be so closely related that they are, in effect, parts of a single project with an overall profit margin, and accounting for the contracts individually may not be feasible or appropriate. Under those circumstances, consideration should be given to combining such contracts for profit recognition purposes. The presumption in combining contracts is that revenue and profit are earned, and should be reported, uniformly over the performance of the combined contracts. For example, a group of construction-type contracts may be negotiated as a package with the objective of achieving an overall profit margin, although the profit margins on the individual contracts may vary. In those circumstances, if the individual contracts are performed and reported in different periods and accounted for separately, the reported profit margins in those periods will differ from the profit margin contemplated in the negotiations for reasons other than differences in performance.

36. Contracts may be combined for accounting purposes only if they meet the criteria in paragraphs 37 and 38.

37. A group of contracts may be combined for accounting purposes if the contracts

a. Are negotiated as a package in the same economic environment with an overall profit margin objective. Contracts not executed at the same time may be considered to have been negotiated as a package in the same economic environment only if the time period between the commitments of the parties to the individual contracts is reasonably short. The longer the period between the commitments of the parties to the contracts, the more likely it is that the economic circumstances affecting the negotiations have changed.

b. Constitute in essence an agreement to do a single project. A project for this purpose consists of construction, or related service activity with different elements, phases, or units of output that are closely interrelated or interdependent in terms of their design, technology, and function or their ultimate purpose or use.

c. Require closely interrelated construction activities with substantial common costs that cannot be separately identified with, or reasonably allocated to, the elements, phases, or units of output.

d. Are performed concurrently or in a continuous sequence under the same project management at the same location or at different locations in the same general vicinity.

e. Constitute in substance an agreement with a single customer. In assessing whether the contracts meet this criterion, the facts and circumstances relating to the other criteria should be considered. In some circumstances different divisions of the same entity would not constitute a single customer if, for example, the negotiations are conducted independently with the different divisions. On the other hand, two or more parties may constitute in substance a single customer if, for example, the negotiations are conducted jointly with the parties to do what in essence is a single project.

Contracts that meet all of these criteria may be combined for profit recognition and for determining the need for a provision for losses in accordance with ARB 45, paragraph 6. The criteria should be applied consistently to contracts with similar characteristics in similar circumstances.

38. Production-type contracts that do not meet the criteria in paragraph 37 or segments of such contracts may be combined into groupings such as production lots or releases for the purpose of accumulating and allocating production costs to units produced or delivered on the basis of average unit costs in the following circumstances:[6]

a. The contracts are with one or more customers for the production of substantially identical units of a basic item produced concurrently or sequentially.

b. Revenue on the contracts is recognized on the units-of-delivery basis of applying the percentage-of-completion method.

Segmenting a Contract

39. A single contract or a group of contracts that otherwise meet the test for combining may include several elements or phases, each of which the contractor negotiated separately with the same customer and agreed to perform without regard to the performance of the others. If those activities are accounted for as a single profit center, the reported income may differ from that contemplated in the negotiations for reasons other than differences in performance. If the project is segmented, revenues can be assigned to the different ele-

[6] Footnote deleted.

ments or phases to achieve different rates of profitability based on the relative value of each element or phase to the estimated total contract revenue. A project, which may consist of a single contract or a group of contracts, with segments that have different rates of profitability may be segmented if it meets the criteria in paragraph 40, paragraph 41, or paragraph 42. The criteria for segmenting should be applied consistently to contracts with similar characteristics and in similar circumstances.

40. A project may be segmented if all the following steps were taken and are documented and verifiable:

a. The contractor submitted bona fide proposals on the separate components of the project and on the entire project.

b. The customer had the right to accept the proposals on either basis.

c. The aggregate amount of the proposals on the separate components approximated the amount of the proposal on the entire project.

41. A project that does not meet the criteria in paragraph 40 may be segmented only if it meets all the following criteria:

a. The terms and scope of the contract or project clearly call for separable phases or elements.

b. The separable phases or elements of the project are often bid or negotiated separately.

c. The market assigns different gross profit rates to the segments because of factors such as different levels of risk or differences in the relationship of the supply and demand for the services provided in different segments.

d. The contractor has a significant history of providing similar services to other customers under separate contracts for each significant segment to which a profit margin higher than the overall profit margin on the profit is ascribed.[7]

e. The significant history with customers who have contracted for services separately is one that is relatively stable in terms of pricing policy rather than one unduly weighted by erratic pricing decisions (responding, for example, to extraordinary economic circumstances or to unique customer-contractor relationships).

f. The excess of the sum of the prices of the separate elements over the price of the total project is clearly attributable to cost savings incident to combined performance of the contract obligations (for example, cost savings in supervision, overhead, or equipment mobilization). Unless this condition is met, segmenting a contract with a price substantially less than the sum of the prices of the separate phases or elements would be inappropriate even if the other conditions are met. Acceptable price variations should be allocated to the separate phases or elements in proportion to the prices ascribed to each. In all other situations a substantial difference in price (whether more or less) between the separate elements and the price of the total project

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[7] In applying the criterion in paragraph 41(*d*), values assignable to the segments should be on the basis of the contractor's normal historical prices and terms of such services to other customers. The division considered but rejected the concept of allowing a contractor to segment on the basis of prices charged by other contractors, since it does not follow that those prices could have been obtained by a contractor who has no history in the market.

is evidence that the contractor has accepted different profit margins. Accordingly, segmenting is not appropriate, and the contracts should be the profit centers.

g. The similarity of services and prices in the contract segments and services and the prices of such services to other customers contracted separately should be documented and verifiable.

42. A production-type contract that does not meet the criteria in paragraphs 40 or 41 may also be segmented and included in groupings such as production lots or releases for the purpose of accumulating and allocating production costs to units produced or delivered on the basis of average unit cost under the conditions specified in paragraph 38.

Measuring Progress on Contracts

43. This section describes methods of measuring the extent of progress toward completion under the percentage-of-completion method and sets forth criteria for selecting those methods and for determining when a contract is substantially completed. Meaningful measurement of the extent of progress toward completion is essential since this factor is used in determining the amounts of estimated contract revenue and estimated gross profit that will be recognized as earned in any given period.

Methods of Measuring Extent of Progress Toward Completion

44. In practice, a number of methods are used to measure the extent of progress toward completion. They include the cost-to-cost method, variations of the cost-to-cost method, efforts-expended methods, the units-of-delivery method, and the units-of-work-performed method. Those practices are intended to conform to ARB 45, paragraph 4.[8] Some of the measures are sometimes made and certified by engineers or architects, but management should review and understand the procedures used by those professionals.

45. Some methods used in practice measure progress toward completion in terms of costs, some in terms of units of work, and some in terms of values added (the contract value of total work performed to date). All three of these measures of progress are acceptable in appropriate circumstances. The division concluded that other methods that achieve the objective of measuring extent of progress toward completion in terms of costs, units, or value added are also acceptable in appropriate circumstances. However, the method or methods selected should be applied consistently to all contracts having similar characteristics. The method or methods of measuring extent of progress toward completion should be disclosed in the notes to the financial statements. Examples of circumstances not appropriate to some methods are given within the discussion of input and output measures.

Input and Output Measures

46. The several approaches to measuring progress on a contract can be grouped into input and output measures. Input measures are made in terms of

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[8] ARB 45, paragraph 4, states:
The committee recommends that the recognized income [under the percentage-of-completion method] be that percentage of estimated total income, either:
(*a*) that incurred costs to date bear to estimated total costs after giving effect to estimates of costs to complete based upon most recent information, or
(*b*) that may be indicated by such other measure of progress toward completion as may be appropriate having due regard to work performed.
Costs as here used might exclude, especially during the early stages of a contract, all or a portion of the cost of such items as materials and subcontracts if it appears that such an exclusion would result in a more meaningful periodic allocation of income.

efforts devoted to a contract. They include the methods based on costs and on efforts expended. Output measures are made in terms of results achieved. They include methods based on units produced, units delivered, contract milestones, and value added. For contracts under which separate units of output are produced, progress can be measured on the basis of units of work completed. In other circumstances, progress may be measured, for example, on the basis of cubic yards of excavation for foundation contracts or on the basis of cubic yards of pavement laid for highway contracts.

47. Both input and output measures have drawbacks in some circumstances. Input is used to measure progress toward completion indirectly, based on an established or assumed relationship between a unit of input and productivity. A significant drawback of input measures is that the relationship of the measures to productivity may not hold, because of inefficiencies or other factors. Output is used to measure results directly and is generally the best measure of progress toward completion in circumstances in which a reliable measure of output can be established. However, output measures often cannot be established, and input measures must then be used. The use of either type of measure requires the exercise of judgment and the careful tailoring of the measure to the circumstances.

48. The efforts-expended method is an input method based on a measure of the work, such as labor hours, labor dollars, machine hours, or material quantities. Under the labor-hours method, for example, extent of progress is measured by the ratio of hours performed to date to estimated total hours at completion. Estimated total labor hours should include *(a)* the estimated labor hours of the contractor and *(b)* the estimated labor hours of subcontractors engaged to perform work for the project, if labor hours of subcontractors are a significant element in the performance of the contract. A labor-hours method can measure the extent of progress in terms of efforts expended only if substantial efforts of subcontractors are included in the computation. If the contractor is unable to obtain reasonably dependable estimates of subcontractors' labor hours at the beginning of the project and as work progresses, he should not use the labor-hours method.

49. The various forms of the efforts-expended method generally are based on the assumption that profits on contracts are derived from the contractor's efforts in all phases of operations, such as designing, procurement, and management. Profit is not assumed to accrue merely as a result of the acquisition of material or other tangible items used in the performance of the contract or the awarding of subcontracts. As previously noted, a significant drawback of efforts-expended methods is that the efforts included in the measure may not all be productive.

50. Measuring progress toward completion based on the ratio of costs incurred to total estimated costs is also an input method. Some of the costs incurred, particularly in the early stages of the contract, should be disregarded in applying this method because they do not relate to contract performance. These include the costs of items such as uninstalled materials not specifically produced or fabricated for the project or of subcontracts that have not been performed. For example, for construction projects, the cost of materials not unique to the project that have been purchased or accumulated at job sites but that have not been physically installed do not relate to performance.[9] The costs

[9] The cost of uninstalled materials specifically produced, fabricated, or constructed for a project should be included in the costs used to measure extent of progress. Such materials consist of items unique to a project that a manufacturer or supplier does not carry in inventory and that must be produced or altered to meet the specifications of the project.

of such materials should be excluded from costs incurred for the purpose of measuring the extent of progress toward completion. Also, the cost of equipment purchased for use on a contract should be allocated over the period of its expected use unless title to the equipment is transferred to the customer by terms of the contract. For production-type contracts, the complement of expensive components (for example, computers, engines, radars, and complex "black boxes") to be installed into the deliverable items may aggregate a significant portion of the total cost of the contract. In some circumstances, the costs incurred for such components, even though the components were specifically purchased for the project, should not be included in the measurement before the components are installed if inclusion would tend to overstate the percentage of completion otherwise determinable.

51. The acceptability of the results of input or output measures deemed to be appropriate to the circumstances should be periodically reviewed and confirmed by alternative measures that involve observation and inspection. For example, the results provided by the measure used to determine the extent of progress may be compared to the results of calculations based on physical observations by engineers, architects, or similarly qualified personnel. That type of review provides assurance somewhat similar to that provided for perpetual inventory records by periodic physical inventory counts.

Completion Criteria Under the Completed-Contract Method

52. As a general rule, a contract may be regarded as substantially completed if remaining costs and potential risks are insignificant in amount. The overriding objectives are to maintain consistency in determining when contracts are substantially completed and to avoid arbitrary acceleration or deferral of income. The specific criteria used to determine when a contract is substantially completed should be followed consistently and should be disclosed in the note to the financial statements on accounting policies. Circumstances to be considered in determining when a project is substantially completed include, for example, delivery of the product, acceptance by the customer, departure from the site, and compliance with performance specifications.

Income Determination—Revenue Elements

53. Estimating the revenue on a contract is an involved process, which is affected by a variety of uncertainties that depend on the outcome of a series of future events. The estimates must be periodically revised throughout the life of the contract as events occur and as uncertainties are resolved.

54. The major factors that must be considered in determining total estimated revenue include the basic contract price, contract options, change orders, claims, and contract provisions for penalties and incentive payments, including award fees and performance incentives. All those factors and other special contract provisions must be evaluated throughout the life of a contract in estimating total contract revenue to recognize revenues in the periods in which they are earned under the percentage-of-completion method of accounting.

Basic Contract Price—General

55. The estimated revenue from a contract is the total amount that a contractor expects to realize from the contract. It is determined primarily by the terms of the contract and the basic contract price. Contract price may be relatively fixed or highly variable and subject to a great deal of uncertainty, depending on the type of contract involved. Appendix B describes basic contract types and major variations in the basic types. The total amount of revenue that ultimately will be realized on a contract is often subject to a variety of changing circumstances and accordingly may not be known with certainty until the parties to the contract have fully performed their obligations. Thus, the determination of total estimated revenue requires careful consideration and the exercise of judgment in assessing the probabilities of future outcomes.

56. Although fixed-price contracts usually provide for a stated contract price, a specified scope of the work to be performed, and a specified performance schedule, they sometimes have adjustment schedules based on application of economic price adjustment (escalation), price redetermination, incentive, penalty, and other pricing provisions. Determining contract revenue under unit-price contracts generally involves the same factors as under fixed-price contracts. Determining contract revenue from a time-and-material contract requires a careful analysis of the contract, particularly if the contract includes guaranteed maximums or assigns markups to both labor and materials; and the determination involves consideration of some of the factors discussed below in regard to cost-type contracts.

Basic Contract Price—Cost-Type Contracts

57. Cost-type contracts have a variety of forms (see Appendix B). The various forms have differing contract terms that affect accounting, such as provisions for reimbursable costs (which are generally spelled out in the contract), overhead recovery percentages, and fees. A fee may be a fixed amount or a percentage of reimbursable costs or an amount based on performance criteria.[10] Generally, percentage fees may be accrued as the related costs are incurred, since they are a percentage of costs incurred, and profits should therefore be recognized as costs are incurred. Cost-type contracts often include provisions for guaranteed maximum total reimbursable costs or target penalties and rewards relating to underruns and overruns of predetermined target prices, completion dates, plant capacity on completion of the project, or other criteria.

58. One problem peculiar to cost-type contracts involves the determination of the amounts of reimbursable costs that should be reflected as revenue. Under some contracts, particularly service-type contracts, a contractor acts solely in the capacity of an agent (construction manager) and has no risks associated with costs managed. This relationship may arise, for example, if an owner awards a construction management contract to one entity and a construction contract to another. If the contractor, serving as the construction manager, acts solely as an agent, his revenue should include only the fee and should exclude subcontracts negotiated or managed on behalf of the owner and materials purchased on behalf of the owner.

59. In other circumstances, a contractor acts as an ordinary principal under a cost-type contract. For example, the contractor may be responsible to employees for salaries and wages and to subcontractors and other creditors for materials and services, and he may have the discretionary responsibility to procure and manage the resources in performing the contract. The contractor should include in revenue all reimbursable costs for which he has risk or on which his fee was based at the time of bid or negotiation. In addition, revenue from overhead percentage recoveries and the earned fee should be included in revenue.

Customer-Furnished Materials

60. Another concern associated with measuring revenue relates to materials furnished by a customer or purchased by the contractor as an agent for

[10] Cost-type government contracts with fees based on a percentage of cost are no longer granted under government regulations.

the customer. Often, particularly for large, complex projects, customers may be more capable of carrying out the procurement function or may have more leverage with suppliers than the contractor. In those circumstances, the contractor generally informs the customer of the nature, type, and characteristics or specifications of the materials required and may even purchase the required materials and pay for them, using customer purchase orders and checks drawn against the customer's bank account. If the contractor is responsible for the nature, type, characteristics, or specifications of material that the customer furnishes or that the contractor purchases as an agent of the customer, or if the contractor is responsible for the ultimate acceptability of performance of the project based on such material, the value of those items should be included as contract price and reflected as revenue and costs in periodic reporting of operations. As a general rule, revenues and costs should include all items for which the contractor has an associated risk, including items on which his contractual fee was based.

Change Orders

61. Change orders are modifications of an original contract that effectively change the provisions of the contract without adding new provisions. They may be initiated by either the contractor or the customer, and they include changes in specifications or design, method or manner of performance, facilities, equipment, materials, site, and period for completion of the work. Many change orders are unpriced; that is, the work to be performed is defined, but the adjustment to the contract price is to be negotiated later. For some change orders, both scope and price may be unapproved or in dispute. Accounting for change orders depends on the underlying circumstances, which may differ for each change order depending on the customer, the contract, and the nature of the change. Change orders should therefore be evaluated according to their characteristics and the circumstances in which they occur. In some circumstances, change orders as a normal element of a contract may be numerous, and separate identification may be impractical. Such change orders may be evaluated statistically on a composite basis using historical results as modified by current conditions. If such change orders are considered by the parties to be a normal element within the original scope of the contract, no change in the contract price is required. Otherwise, the adjustment to the contract price may be routinely negotiated. Contract revenue and costs should be adjusted to reflect change orders approved by the customer and the contractor regarding both scope and price.

62. Accounting for unpriced change orders depends on their characteristics and the circumstances in which they occur. Under the completed-contract method, costs attributable to unpriced change orders should be deferred as contract costs if it is probable that aggregate contract costs, including costs attributable to change orders, will be recovered from contract revenues. For all unpriced change orders, recovery should be deemed probable if the future event or events necessary for recovery are likely to occur. Some of the factors to consider in evaluating whether recovery is probable are the customer's written approval of the scope of the change order, separate documentation for change order costs that are identifiable and reasonable, and the entity's favorable experience in negotiating change orders, especially as it relates to the specific type of contract and change order being evaluated. The following guidelines should be followed in accounting for unpriced change orders under the percentage-of-completion method.

a. Costs attributable to unpriced change orders should be treated as costs of contract performance in the period in which the costs are incurred if it is *not* probable that the costs will be recovered through a change in the contract price.

b. If it is probable that the costs will be recovered through a change in the contract price, the costs should be deferred (excluded from the cost of contract performance) until the parties have agreed on the change in contract price, or, alternatively, they should be treated as costs of contract performance in the period in which they are incurred, and contract revenue should be recognized to the extent of the costs incurred.

c. If it is probable that the contract price will be adjusted by an amount that exceeds the costs attributable to the change order and the amount of the excess can be reliably estimated, the original contract price should also be adjusted for that amount when the costs are recognized as costs of contract performance if its realization is probable. However, since the substantiation of the amount of future revenue is difficult, revenue in excess of the costs attributable to unpriced change orders should only be recorded in circumstances in which realization is assured beyond a reasonable doubt, such as circumstances in which an entity's historical experience provides such assurance or in which an entity has received a bona fide pricing offer from a customer and records only the amount of the offer as revenue.

63. If change orders are in dispute or are unapproved in regard to both scope and price, they should be evaluated as claims (see paragraphs 65 to 67).

Contract Options and Additions

64. An option or an addition to an existing contract should be treated as a separate contract in any of the following circumstances:

a. The product or service to be provided differs significantly from the product or service provided under the original contract.

b. The price of the new product or service is negotiated without regard to the original contract and involves different economic judgments.

c. The products or services to be provided under the exercised option or amendment are similar to those under the original contract, but the contract price and anticipated contract cost relationship are significantly different.

If an option or addition to an existing contract does not meet any of the above conditions, it may be combined with the original contract if it meets the criteria in paragraph 37 or 38. Exercised options or additions that do not meet the criteria for treatment as separate contracts or for combining with the original contracts should be treated as change orders on the original contracts.

Claims

65. Claims are amounts in excess of the agreed contract price (or amounts not included in the original contract price) that a contractor seeks to collect from customers or others for customer-caused delays, errors in specifications and designs, contract terminations, change orders in dispute or unapproved as to both scope and price, or other causes of unanticipated additional costs. Recognition of amounts of additional contract revenue relating to claims is appropriate only if it is probable that the claim will result in additional contract revenue and if the amount can be reliably estimated. Those two requirements are satisfied by the existence of all the following conditions:

a. The contract or other evidence provides a legal basis for the claim; or a legal opinion has been obtained, stating that under the circumstances there is a reasonable basis to support the claim.

b. Additional costs are caused by circumstances that were unforeseen at the contract date and are not the result of deficiencies in the contractor's performance.

c. Costs associated with the claim are identifiable or otherwise determinable and are reasonable in view of the work performed.

d. The evidence supporting the claim is objective and verifiable, not based on management's "feel" for the situation or on unsupported representations.

If the foregoing requirements are met, revenue from a claim should be recorded only to the extent that contract costs relating to the claim have been incurred. The amounts recorded, if material, should be disclosed in the notes to the financial statements. Costs attributable to claims should be treated as costs of contract performance as incurred.

66. However, a practice such as recording revenues from claims only when the amounts have been received or awarded may be used. If that practice is followed, the amounts should be disclosed in the notes to the financial statements.

67. If the requirements in paragraph 65 are not met or if those requirements are met but the claim exceeds the recorded contract costs, a contingent asset should be disclosed in accordance with FASB Statement No. 5, *Accounting for Contingencies,* paragraph 17.

Income Determination—Cost Elements

68. Contract costs must be identified, estimated, and accumulated with a reasonable degree of accuracy in determining income earned. At any time during the life of a contract, total estimated contract cost consists of two components: costs incurred to date and estimated cost to complete the contract. A company should be able to determine costs incurred on a contract with a relatively high degree of precision, depending on the adequacy and effectiveness of its cost accounting system. The procedures or systems used in accounting for costs vary from relatively simple, manual procedures that produce relatively modest amounts of detailed analysis to sophisticated, computer-based systems that produce a great deal of detailed analysis. Despite the diversity of systems and procedures, however, an objective of each system or of each set of procedures should be to accumulate costs properly and consistently by contract with a sufficient degree of accuracy to assure a basis for the satisfactory measurement of earnings.

Contract Costs

69. Contract costs are accumulated in the same manner as inventory costs and are charged to operations as the related revenue from contracts is recognized. Contract costs generally include all direct costs, such as materials, direct labor, and subcontracts, and indirect costs identifiable with or allocable to the contracts. However, practice varies for certain types of indirect costs considered allocable to contracts, for example, support costs (such as central preparation and processing of job payrolls, billing and collection costs, and bidding and estimating costs).

70. Authoritative accounting pronouncements require costs to be considered period costs if they cannot be clearly related to production, either directly or by an allocation based on their discernible future benefits.

71. Income is recognized over the term of the contract under the percentage-of-completion method or is recognized as units are delivered under the units-of-delivery modification and is deferred until performance is substantially complete under the completed-contract method. None of the characteristics peculiar to those methods, however, require accounting for contract costs to deviate in principle from the basic framework established in existing authoritative literature applicable to inventories or business enterprises in general.

72. A contracting entity should apply the following general principles in accounting for costs of construction-type and those production-type contracts covered by this statement. The principles are consistent with generally accepted accounting principles for inventory and production costs in other areas, and their application requires the exercise of judgment.

a. All direct costs, such as material, labor, and subcontracting costs, should be included in contract costs.

b. Indirect costs allocable to contracts include the costs of indirect labor, contract supervision, tools and equipment, supplies, quality control and inspection, insurance, repairs and maintenance, depreciation and amortization, and, in some circumstances, support costs, such as central preparation and processing of payrolls. For government contractors, other types of costs that are allowable or allocable under pertinent government contract regulations may be allocated to contracts as indirect costs if otherwise allowable under GAAP.[11] Methods of allocating indirect costs should be systematic and rational. They include, for example, allocations based on direct labor costs, direct labor hours, or a combination of direct labor and material costs. The appropriateness of allocations of indirect costs and of the methods of allocation depend on the circumstances and involve judgment.

c. General and administrative costs ordinarily should be charged to expense as incurred but may be accounted for as contract costs under the completed-contract method of accounting[12] or, in some circumstances, as indirect contract costs by government contractors.[13]

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[11] The AICPA audit and accounting guide, *Audits of Federal Government Contractors*, states, "Practice varies among government contractors concerning the extent to which costs are included in inventory. Some contractors include in inventory all direct costs and only certain indirect costs. . . . Other contractors record as inventory accounts all costs identified with the contract, including an allocation of general and administrative. . . expenses." The guide points out that many accountants believe that the practice of allocating general and administrative expenses to contract costs, which is permitted under the completed-contract method by ARB 45, paragraph 10, may appropriately be extended to government contracts because they believe that "costs incurred pursuant to a government contract are associated directly with the contract's revenue, and both should be recognized in the same period."

[12] Paragraph 10 of ARB 45, *Long-Term Construction-Type Contracts,* states

When the completed-contract method is used, it may be appropriate to allocate general and administrative expenses to contract costs rather than to periodic income. This may result in a better matching of costs and revenues than would result from treating such expenses as period cost, particularly in years when no contracts were completed.

[13] See the discussion of the AICPA audit and accounting guide, *Audits of Federal Government Contractors,* in footnote 11.

d. Selling costs should be excluded from contract costs and charged to expense as incurred unless they meet the criteria for precontract costs in paragraph 75.

e. Costs under cost-type contracts should be charged to contract costs in conformity with generally accepted accounting principles in the same manner as costs under other types of contracts because unrealistic profit margins may result in circumstances in which reimbursable cost accumulations omit substantial contract costs (with a resulting larger fee) or include substantial unallocable general and administrative costs (with a resulting smaller fee).

f. In computing estimated gross profit or providing for losses on contracts, estimates of cost to complete should reflect all of the types of costs included in contract costs.

g. Inventoriable costs should not be carried at amounts that when added to the estimated cost to complete are greater than the estimated realizable value of the related contracts.

Interest costs should be accounted for in accordance with FASB Statement No. 34, *Capitalization of Interest Cost.*

Precontract Costs

73. In practice, costs are deferred in anticipation of future contract sales in a variety of circumstances. The costs may consist of (*a*) costs incurred in anticipation of a specific contract that will result in no future benefit unless the contract is obtained (such as the costs of mobilization, engineering, architectural, or other services incurred on the basis of commitments or other indications of interest in negotiating a contract), (*b*) costs incurred for assets to be used in connection with specific anticipated contracts (for example, costs for the purchase of production equipment, materials, or supplies), (*c*) costs incurred to acquire or produce goods in excess of the amounts required under a contract in anticipation of future orders for the same item, and (*d*) learning, start-up, or mobilization costs incurred for anticipated but unidentified contracts.

74. Learning or start-up costs are sometimes incurred in connection with the performance of a contract or a group of contracts. In some circumstances, follow-on or future contracts for the same goods or services are anticipated. Such costs usually consist of labor, overhead, rework, or other special costs that must be incurred to complete the existing contract or contracts in progress and are distinguished from research and development costs.[14] A direct relationship between such costs and the anticipated future contracts is often difficult to establish, and the receipt of future contracts often cannot reasonably be anticipated.

75. The division recommends the following accounting for precontract costs:

a. Costs that are incurred for a specific anticipated contract and that will result in no future benefits unless the contract is obtained should not be included in contract costs or inventory before the receipt of the contract. However, such costs may be otherwise deferred, subject to evaluation of their probable recoverability, but only if the costs can be directly associated with a specific anticipated contract and if their recoverability from that contract is probable.

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[14] Statement of Financial Accounting Standards No. 2, *Accounting for Research and Development Costs,* requires that research and development costs be charged to expense when incurred.

b. Costs incurred for assets, such as costs for the purchase of materials, production equipment, or supplies, that are expected to be used in connection with anticipated contracts may be deferred outside the contract cost or inventory classification if their recovery from future contract revenue or from other dispositions of the assets is probable.

c. Costs incurred to acquire or produce goods in excess of the amounts required for an existing contract in anticipation of future orders for the same items may be treated as inventory if their recovery is probable.

d. Learning or start-up costs incurred in connection with existing contracts and in anticipation of follow-on or future contracts for the same goods or services should be charged to existing contracts.[15]

e. Costs appropriately deferred in anticipation of a contract should be included in contract costs on the receipt of the anticipated contract.

f. Costs related to anticipated contracts that are charged to expenses as incurred because their recovery is not considered probable should not be reinstated by a credit to income on the subsequent receipt of the contract.

Cost Adjustments Arising from Back Charges

76. Back charges are billings for work performed or costs incurred by one party that, in accordance with the agreement, should have been performed or incurred by the party to whom billed. These frequently are disputed items. For example, owners bill back charges to general contractors, and general contractors bill back charges to subcontractors. Examples of back charges include charges for cleanup work and charges for a subcontractor's use of a general contractor's equipment.

77. A common practice is to net back charges in the estimating process. The division recommends the following procedures in accounting for back charges:

- Back charges to others should be recorded as receivables and, to the extent considered collectible, should be applied to reduce contract costs. However, if the billed party disputes the propriety or amount of the charge, the back charge is in effect a claim, and the criteria for recording claims apply.
- Back charges from others should be recorded as payables and as additional contract costs to the extent that it is probable that the amounts will be paid.

Estimated Cost to Complete

78. The estimated cost to complete, the other component of total estimated contract cost, is a significant variable in the process of determining income earned and is thus a significant factor in accounting for contracts. The latest estimate may be determined in a variety of ways and may be the same as the original estimate. Practices in estimating total contract costs vary, and guidance is needed in this area because of the impact of those practices on accounting. The following practices should be followed:

a. Systematic and consistent procedures that are correlated with the cost accounting system should be used to provide a basis for periodically comparing actual and estimated costs.

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[15] Footnote deleted.

b. In estimating total contract costs, the quantities and prices of all significant elements of cost should be identified.

c. The estimating procedures should provide that estimated cost to complete includes the same elements of cost that are included in actual accumulated costs; also, those elements should reflect expected price increases.

d. The effects of future wage and price escalations should be taken into account in cost estimates, especially when the contract performance will be carried out over a significant period of time. Escalation provisions should not be blanket overall provisions but should cover labor, materials, and indirect costs based on percentages or amounts that take into consideration experience and other pertinent data.

e. Estimates of cost to complete should be reviewed periodically and revised as appropriate to reflect new information.

Computation of Income Earned for a Period Under the Percentage-of-Completion Method

79. Total estimated gross profit on a contract, the difference between total estimated contract revenue and total estimated contract cost, must be determined before the amount earned on the contract for a period can be determined. The portion of total revenue earned or the total amount of gross profit earned to date is determined by the measurement of the extent of progress toward completion using one of the methods discussed in paragraphs 44 to 51 of this statement. The computation of income earned for a period involves a determination of the portion of total estimated contract revenue that has been earned to date (earned revenue) and the portion of total estimated contract cost related to that revenue (cost of earned revenue). Two different approaches to determining earned revenue and cost of earned revenue are widely used in practice. Either of the alternative approaches may be used on a consistent basis.[16]

Alternative A

80. The advocates of this method believe that the portion of total estimated contract revenue earned to date should be determined by the measurement of the extent of progress toward completion and that, in accordance with the matching concept, the measurement of extent of progress toward completion should also be used to allocate a portion of total estimated contract cost to the revenue recognized for the period. They believe that this procedure results in reporting earned revenue, cost of earned revenue, and gross profit consistent with the measurement of contract performance. Moreover, they believe that, if there are no changes in estimates during the performance of a contract, the procedure also results in a consistent gross profit percentage from period to period. However, they recognize that a consistent gross profit percentage is rarely obtained in practice because of the need to be responsive in the accounting process to changes in estimates of contract revenues, costs, earned revenue, and gross profits. In accordance with this procedure, earned revenue, cost of earned revenue, and gross profit should be determined as follows:

a. *Earned Revenue* to date should be computed by multiplying total estimated contract revenue by the percentage of completion (as de-

[16] The use of Alternative A in the discussion and in the presentation of some of the provisions of this statement is for convenience and consistency and is not intended to imply that Alternative A is the preferred approach.

termined by one of the acceptable methods of measuring the extent of progress toward completion). The excess of the amount over the earned revenue reported in prior periods is the earned revenue that should be recognized in the income statement for the current period.

b. *Cost of Earned Revenue* for the period should be computed in a similar manner. Cost of earned revenue to date should be computed by multiplying total estimated contract cost by the percentage of completion on the contract. The excess of that amount over the cost of earned revenue reported in prior periods is the cost of earned revenue that should be recognized in the income statement for the current period. The difference between total cost incurred to date and cost of earned revenue to date should be reported on the balance sheet.

c. *Gross Profit* on a contract for a period is the excess of earned revenue over the cost of earned revenue.

Alternative B

81. The advocates of this method believe that the measurement of the extent of progress toward completion should be used to determine the amount of gross profit earned to date and that the earned revenue to date is the sum of the total cost incurred on the contract and the amount of gross profit earned. They believe that the cost of work performed on a contract for a period, including materials, labor, subcontractors, and other costs, should be the cost of earned revenue for the period. They believe that the amount of costs incurred can be objectively determined, does not depend on estimates, and should be the amount that enters into the accounting determination of income earned. They recognize that, under the procedure that they advocate, gross profit percentages will vary from period to period unless the cost-to-cost method is used to measure the extent of progress toward completion. However, they believe that varying profit percentages are consistent with the existing authoritative literature when costs incurred do not provide an appropriate measure of the extent of progress toward completion. In accordance with Alternative B, earned revenue, cost of earned revenue, and gross profit are determined as follows:

a. *Earned Revenue* is the amount of gross profit earned on a contract for a period plus the costs incurred on the contract during the period.

b. *Cost of Earned Revenue* is the cost incurred during the period, excluding the cost of materials not unique to a contract that have not been used for the contract and costs incurred for subcontracted work that is still to be performed.

c. *Gross Profit* earned on a contract should be computed by multiplying the total estimated gross profit on the contract by the percentage of completion (as determined by one of the acceptable methods of measuring extent of progress toward completion). The excess of that amount over the amount of gross profit reported in prior periods is the earned gross profit that should be recognized in the income statement for the current period.

Revised Estimates

82. Adjustments to the original estimates of the total contract revenue, total contract cost, or extent of progress toward completion are often required as work progresses under the contract and as experience is gained, even though the scope of the work required under the contract may not change. The nature of accounting for contracts is such that refinements of the estimating process for changing conditions and new developments are continuous and characteristic of the process. Additional information that enhances and refines the estimating process is often obtained after the balance sheet date but before the issuance of the financial statements; such information should result in an adjustment of the unissued financial statements. Events occurring after the date of the financial statements that are outside the normal exposure and risk aspects of the contract should not be considered refinements of the estimating process of the prior year but should be disclosed as subsequent events.

83. Revisions in revenue, cost, and profit estimates or in measurements of the extent of progress toward completion are changes in accounting estimates as defined in APB Opinion No. 20, *Accounting Changes.*[17] That opinion has been interpreted to permit the following two alternative methods of accounting for changes in accounting estimates:

- *Cumulative Catch-up.* Account for the change in estimate in the period of change so that the balance sheet at the end of the period of change and the accounting in subsequent periods are as they would have been if the revised estimate had been the original estimate.
- *Reallocation.* Account for the effect of the change ratably over the period of change in estimate and subsequent periods.

Although both methods are used in practice to account for changes in estimates of total revenue, total costs, or extent of progress under the percentage-of-completion method, the cumulative catch-up method is more widely used. Accordingly, to narrow the areas of differences in practice, such changes should be accounted for by the cumulative catch-up method.

84. Although estimating is a continuous and normal process for contractors, the second sentence of APB Opinion No. 20, paragraph 33, recommends disclosure of the effect of significant revisions if the effect is material.[18]

Provisions for Anticipated Losses on Contracts

85. When the current estimates of total contract revenue and contract cost indicate a loss, a provision for the entire loss on the contract should be made. Provisions for losses should be made in the period in which they become evident under either the percentage-of-completion method or the completed-contract method. If a group of contracts are combined based on the criteria in paragraph 37 or 38, they should be treated as a unit in determining the necessity for a provision for a loss. If contracts are segmented based on the criteria in paragraphs 40, 41, or 42 of this statement, the individual segments should be considered separately in determining the need for a provision for a loss.

86. Losses on cost-type contracts, although less frequent, may arise if, for example, a contract provides for guaranteed maximum reimbursable costs or target penalties. In recognizing losses for accounting purposes, the contractor's

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[17] Paragraph 31 of APB Opinion No. 20, *Accounting Changes,* requires that "the effect of a change in accounting estimate should be accounted for in (*a*) the period of change if the change affects that period only or (*b*) the period of change and future periods if the change affects both."

[18] APB Opinion No. 20, paragraph 33, states,

The effect on income before extraordinary items, net income and related per share amounts of the current period should be disclosed for a change in estimate that affects several future periods, such as a change in service lives of depreciable assets or actuarial assumptions affecting pension costs. Disclosure of the effect on those income statement amounts is not necessary for estimates made each period in the ordinary course of accounting for items such as uncollectible accounts or inventory obsolescence; however, disclosure is recommended if the effect of a change in the estimate is material.

normal cost accounting methods should be used in determining the total cost overrun on the contract, and losses should include provisions for performance penalties.

87. The costs used in arriving at the estimated loss on a contract should include all costs of the type allocable to contracts under paragraph 72 of this statement. Other factors that should be considered in arriving at the projected loss on a contract include target penalties and rewards, nonreimbursable costs on cost-plus contracts, change orders, and potential price redeterminations. In circumstances in which general and administrative expenses are treated as contract costs under the completed-contract method of accounting, the estimated loss should include the same types of general and administrative expenses.

88. The provision for loss arises because estimated cost for the contract exceeds estimated revenue. Consequently, the provision for loss should be accounted for in the income statement as an additional contract cost rather than as a reduction of contract revenue, which is a function of contract price, not cost. Unless the provision is material in amount or unusual or infrequent in nature, the provision should be included in contract cost and need not be shown separately in the income statement. If it is shown separately, it should be shown as a component of the cost included in the computation of gross profit.

89. Provisions for losses on contracts should be shown separately as liabilities on the balance sheet, if significant, except in circumstances in which related costs are accumulated on the balance sheet, in which case the provisions may be deducted from the related accumulated costs. In a classified balance sheet, a provision shown as a liability should be shown as a current liability.

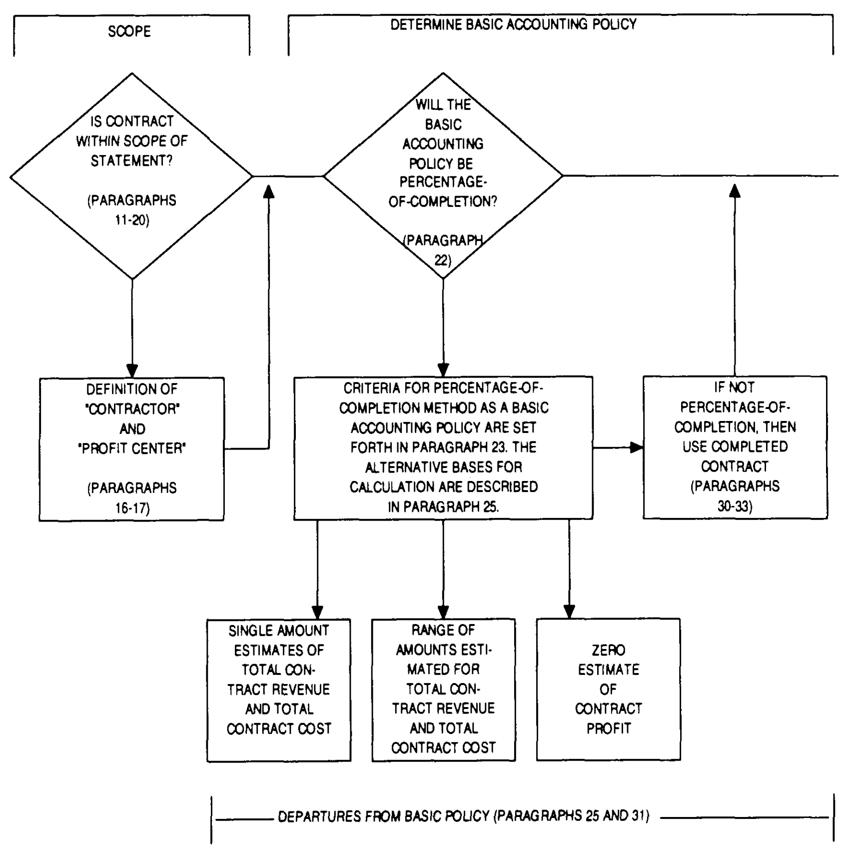
Transition

90. An accounting change from the completed-contract method or from the percentage-of-completion method to conform to the recommendations of this statement of position should be made retroactively by restating the financial statements of prior periods. The restatement should be made on the basis of current information if historical information is not available. If the information for restatement of prior periods is not available on either a historical or current basis, financial statements and summaries should be restated for as many consecutive prior periods preceding the transition date of this statement as is practicable, and the cumulative effect on the retained earnings at the beginning of the earliest period restated (or at the beginning of the period in which the statement is first applied if it is not practicable to restate any prior periods) should be included in determining net income for that period (see paragraph 20 of APB Opinion No. 20, *Accounting Changes*).

91. Accounting changes to conform to the recommendations of this statement of position, other than those stated in paragraph 90, should be made prospectively for contracting transactions, new contracts, and contract revisions entered into on or after the effective date of this statement. The division recommends the application of the provisions of this statement for fiscal years, and interim periods in such fiscal years, beginning after June 30, 1981. The division encourages earlier application of this statement, including retroactive application to all contracts regardless of when they were entered into. Disclosures should be made in the financial statements in the period of change in accordance with APB Opinion No. 20, paragraph 28.

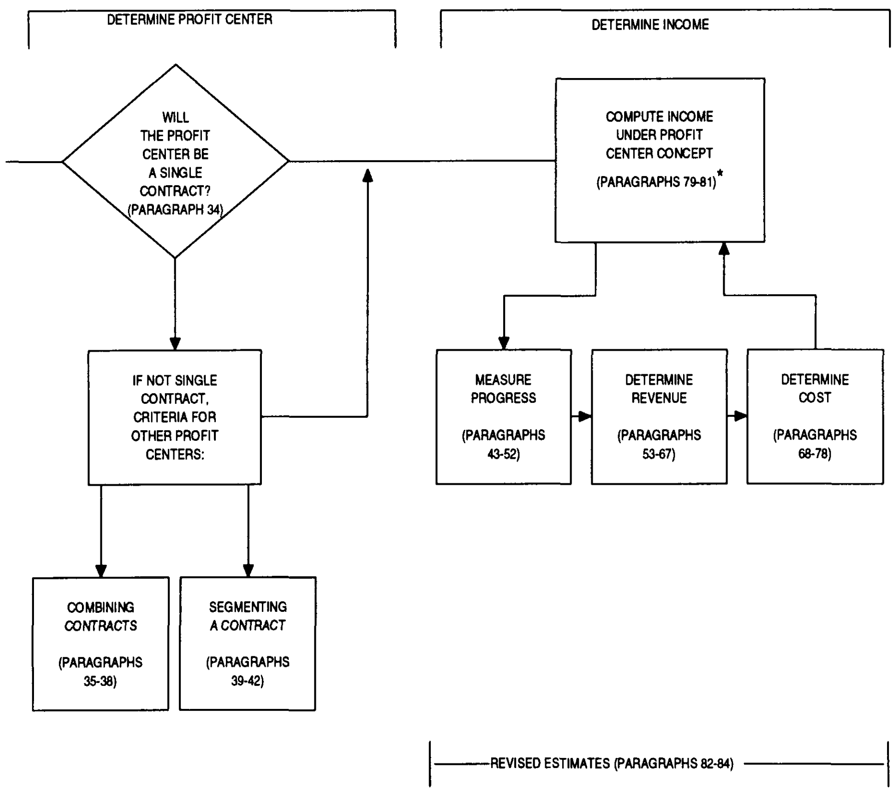
APPENDIX A

Schematic Chart of SOP Organization



NOTE: ALL PARAGRAPH NUMBERS ABOVE REFER TO TEXT OF SOP.

* If computation results in a loss, see paragraphs 85-89



DETERMINE PROFIT CENTER
DETERMINE INCOME
WILL THE PROFIT CENTER BE A SINGLE CONTRACT? (PARAGRAPH 34)
COMPUTE INCOME UNDER PROFIT CENTER CONCEPT (PARAGRAPHS 79-81)*
IF NOT SINGLE CONTRACT, CRITERIA FOR OTHER PROFIT CENTERS:
MEASURE PROGRESS (PARAGRAPHS 43-52)
DETERMINE REVENUE (PARAGRAPHS 53-67)
DETERMINE COST (PARAGRAPHS 68-78)
COMBINING CONTRACTS (PARAGRAPHS 35-38)
SEGMENTING A CONTRACT (PARAGRAPHS 39-42)
REVISED ESTIMATES (PARAGRAPHS 82-84)

APPENDIX B

Types of Contracts

Four basic types of contracts are distinguished on the basis of their pricing arrangements in paragraph 15 of this statement: (*a*) fixed-price or lump-sum contracts, (*b*) time-and-material contracts, (*c*) cost-type (including cost-plus) contracts, and (*d*) unit-price contracts. This appendix describes the basic types of contracts in greater detail and briefly describes common variations of each basic type.

Fixed-Price or Lump-Sum Contracts

A fixed-price or lump-sum contract is a contract in which the price is not usually subject to adjustment because of costs incurred by the contractor. Common variations of fixed-price contracts are

1. *Firm fixed-price contract*—A contract in which the price is not subject to any adjustment by reason of the cost experience of the contractor or his performance under the contract.

2. *Fixed-price contract with economic price adjustment*—A contract which provides for upward or downward revision of contract price upon the occurrence of specifically defined contingencies, such as increases or decreases in material prices or labor wage rates.

3. *Fixed-price contract providing for prospective periodic redetermination of price*—A contract which provides a firm fixed-price for an initial number of unit deliveries or for an initial period of performance and for prospective price redeterminations either upward or downward at stated intervals during the remaining period of performance under the contract.

4. *Fixed-price contract providing for retroactive redetermination of price*—A contract which provides for a ceiling price and retroactive price redetermination (within the ceiling price) after the completion of the contract, based on costs incurred, with consideration being given to management ingenuity and effectiveness during performance.

5. *Fixed-price contract providing for firm target cost incentives*—A contract which provides at the outset for a firm target cost, a firm target profit, a price ceiling (but not a profit ceiling or floor), and a formula (based on the relationship which final negotiated total cost bears to total target cost) for establishing final profit and price.

6. *Fixed-price contract providing for successive target cost incentives*—A contract which provides at the outset for an initial target cost, an initial target profit, a price ceiling, a formula for subsequently fixing the firm target profit (within a ceiling and a floor established along with the formula, at the outset), and a production point at which the formula will be applied.

7. *Fixed-price contract providing for performance incentives*—A contract which incorporates an incentive to the contractor to surpass stated performance targets by providing for increases in the profit to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.

8. *Fixed-price level-of-effort term contract*—A contract which usually calls for investigation or study in a specific research and development area. It obligates

the contractor to devote a specified level of effort over a stated period of time for a fixed dollar amount.[1]

Time-and-Material Contracts

Time-and-material contracts are contracts that generally provide for payments to the contractor on the basis of direct labor hours at fixed hourly rates (that cover the cost of direct labor and indirect expenses and profit) and cost of materials or other specified costs. Common variations of time and material contracts are

1. Time at marked-up rate.
2. Time at marked-up rate, material at cost.
3. Time and material at marked-up rates.
4. Guaranteed maximum cost—labor only or labor and material.

Cost-Type Contracts

Cost-type contracts provide for reimbursement of allowable or otherwise defined costs incurred plus a fee that represents profit. Cost-type contracts usually only require that the contractor use his best efforts to accomplish the scope of the work within some specified time and some stated dollar limitation. Common variations of cost-plus contracts are

1. *Cost-sharing contract*—A contract under which the contractor is reimbursed only for an agreed portion of costs and under which no provision is made for a fee.

2. *Cost-without-fee contract*—A contract under which the contractor is reimbursed for costs with no provision for a fee.

3. *Cost-plus-fixed-fee contract*—A contract under which the contractor is reimbursed for costs plus the provision for a fixed fee.

4. *Cost-plus-award-fee contract*—A contract under which the contractor is reimbursed for costs plus a fee consisting of two parts: (*a*) a fixed amount which does not vary with performance and (*b*) an award amount based on performance in areas such as quality, timeliness, ingenuity, and cost-effectiveness. The amount of award fee is based upon a subjective evaluation by the government of the contractor's performance judged in light of criteria set forth in the contract.

5. *Cost-plus-incentive-fee contract (Incentive based on cost)*—A contract under which the contractor is reimbursed for costs plus a fee which is adjusted by formula in accordance with the relationship which total allowable costs bear to target cost. At the outset there is negotiated a target cost, a target fee, a minimum and maximum fee, and the adjustment formula.

6. *Cost-plus-incentive-fee contract (Incentive based on performance)*—A contract under which a contractor is reimbursed for costs plus an incentive to surpass stated performance targets by providing for increases in the fee to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.[2]

Unit-Price Contracts

Unit-price contracts are contracts under which the contractor is paid a specified amount for every unit of work performed. A unit-price contract is es-

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[1] AICPA Audit and Accounting Guide, *Audits of Federal Government Contractors*, paragraphs 1.27-1.35.

[2] AICPA Audit and Accounting Guide, *Audits of Federal Government Contractors*, paragraphs 1.41-1.42.

sentially a fixed-price contract with the only variable being units of work performed. Variations in unit-price contracts include the same type of variations as fixed-price contracts. A unit-price contract is normally awarded on the basis of a total price that is the sum of the product of the specified units and unit prices. The method of determining total contract price may give rise to unbalanced unit prices because units to be delivered early in the contract may be assigned higher unit prices than those to be delivered as the work under the contract progresses.

APPENDIX C

Summary of Disclosure Recommendations in Statement of Position

SOP Par.	*Nature of Disclosure*
21	Accounting policy—methods of reporting revenue
45	Method or methods of measuring extent of progress toward completion
52	Criteria for determining substantial completion
65-67	Information on revenue and costs arising from claims
84	Effects of changes in estimates on contracts
90-91	Effects of accounting changes to conform to SOP

Appendix B

Illustrations of Segmenting Criteria

Information relating to the segmenting of contracts for revenue recognition purposes and the criteria for segmenting are discussed in paragraphs 39 to 41 of the SOP. The following examples illustrate the application of those criteria in specific circumstances:

1. A design/build contractor negotiates a contract that provides for design engineering, procurement, and construction of a nuclear power plant. The contract specifies the separate phases of the work, and, for this type of project, the phases are frequently contracted separately. Moreover, the contractor has a significant history of providing similar services to other customers contracting for the phases separately. Such a history shows a relatively stable pricing policy. The contractor's normal fee on design engineering is 15%, on procurement, 2%, and on construction, 5%. These rates are commensurate with the different levels of risk attributable to the separate phases, and the aggregate of the values of the separate phases produced from such a fee structure is approximately equal to the overall contract price. The similarity of services and prices in the contract segments to services and the prices of such services to other customers contracted separately is documented and verifiable. The contract does not meet the first set of criteria (paragraph 40 of the SOP) but does meet the second set of criteria (paragraph 41 of the SOP) and therefore qualifies for segmenting. However, if any one of the required conditions in paragraph 41 is not met, segmenting would not be appropriate. For example, the contractor's significant history might have been with fossil fueled instead of nuclear powered generating plants. Or the different gross profit rates, even though supported by the contractor's history, might not be justified by different levels of risk or by disparities in the relationship of supply and demand for the segment services. Such circumstances could arise from an erratic or unusual labor market for a particular project.
2. A contract provides for construction of an apartment building, swimming pool, and other amenities. The contractor has a significant history of providing similar services to other customers who have contracted for such services separately. His significant history is one of a relatively stable pricing policy. He wishes to assign values to the segments on the basis of his normal historical prices and terms to such customers. On that basis, the aggregate of the segment values will approximate the total contract price. However, although this contractor performs the phases separately, the practice is unusual and is not done by other contractors in the industry. Also, the different gross profit rates that the contractor would ascribe to the segments based on his history cannot practicably be related to economic risk or supply and demand disparities. Since the facts do not meet the criteria in either paragraph 40 or 41 of the SOP, the contract should not be segmented.
3. A contractor is a road builder, performing alternately under contracts in which much of the work is subcontracted and under con-

tracts in which he performs all the work himself. Under contracts involving subcontractors, the contractor generally realizes a lower profit margin due to the spread of risk to subcontractors. He therefore wishes to segment his contract revenues between the subcontracted portions of the work and the portions that he performs himself, assigning a greater amount of revenue to the latter and a lesser amount to the former. His history with both types of work is significant and is supported by a relatively stable pricing policy. However, it is not customary for the portions of the work to which the greater amounts of revenue are to be ascribed to be contracted separately from the other portions. The contract should not be segmented since the criteria in neither paragraph 40 nor 41 of the SOP are met.

4. An electrical and mechanical subcontractor is awarded both the electrical and mechanical work based on separate, independent bids. Separate subcontracts are signed and become the profit centers for profit recognition purposes. Had the work been negotiated as a package, the contract might have been segmented only if the criteria in either paragraph 40 or 41 of the SOP had been met.
5. A contractor is awarded a contract to construct three virtually identical generating power plants in different locations. His costs will vary because of differences in site work, transportation, labor conditions, and other factors at the three locations. He wishes to segment contract revenues in response to cost differences. He has a significant history of constructing generating plants under separate contracts under a relatively stable pricing policy. However, segmenting contract revenues on this basis would not be commensurate with the different levels of risk or the supply or demand disparities of the three projects. The contract should not be segmented in these circumstances.

Appendix C

Computing Income Earned Under the Percentage-of-Completion Method

Illustration of the Alternative A Procedure

The following hypothetical data are used to illustrate the computation of income earned under the Alternative A procedure. A contracting company has a lump-sum contract for $9 million to build a bridge at a total estimated cost of $8 million. The construction period covers three years. Financial data during the construction period are as follows:

	Year 1	*Year 2*	*Year 3*
	(in thousands of dollars)		
Total estimated revenue	$ 9,000	$ 9,100	$ 9,200
Cost incurred to date	$ 2,050	$ 6,100	$ 8,200
Estimated cost to complete	6,000	2,000	—
Total estimated cost	$ 8,050	$ 8,100	$ 8,200
Estimated gross profit	$ 950	$ 1,000	$ 1,000
Billings to date	$ 1,800	$ 5,500	$ 9,200
Collections to date	$ 1,500	$ 5,000	$ 9,200
Measure of progress	25%	75%	100%

The amount of revenue, costs, and income recognized in the three periods would be as follows:

	To Date	Recognized Prior Year	Current Year
	(in thousands of dollars)		
Year 1			
Earned revenue			
($9,000,000 × .25)	$2,250.0		$2,250.0
Cost of earned revenue			
($8,050,000 × .25)	2,012.5		2,012.5
Gross profit	$ 237.5		$ 237.5
Gross profit rate	10.5%		10.5%
Year 2			
Earned revenue			
($9,100,000 × .75)	$6,825.0	$2,250.0	$4,575.0
Cost of earned revenue			
($8,100,000 × .75)	6,075.0	2,012.5	4,062.5
Gross profit	$ 750.0	$ 237.5	$ 512.5
Gross profit rate	11.0%	10.5%	11.2%
Year 3			
Earned revenue	$9,200.0	$6,825.0	$2,375.0
Cost of earned revenue	8,200.0	6,075.0	2,125.0
Gross profit	$1,000.0	$ 750.0	$ 250.0
Gross profit rate	10.9%	11.0%	10.5%

Comparison of Alternative A and Alternative B

The following hypothetical data are used to compare the income statement and balance sheet effects of Alternative A and Alternative B:

Estimated Contract		
Revenues		$1,000,000
Cost		900,000
Gross profit		$ 100,000
% of gross profit		10%
Annual Information	*To Date*	*Current*
Year 1		
Billings	$ 200,000	$ 200,000
Cost incurred	300,000	300,000
% complete	25%	

Annual Information	*To Date*	*Current*
Year 2		
Billings	$ 750,000	$ 550,000
Cost incurred	650,000	350,000
% complete	75%	
Year 3		
Billings	$1,000,000	$ 250,000
Cost incurred	900,000	250,000
% complete	100%	

The results of measuring earned revenues, cost of earned revenues, and gross profit by Alternative A and Alternative B would be as follows:

	Alternative A	*Alternative B*
Income Statement		
Year 1		
Earned revenue	$ 250,000	$ 325,000
Cost of earned revenue	225,000	300,000
Gross profit	$ 25,000	$ 25,000
% of gross profit	10%	7.7%
Year 2		
Earned revenue	$ 500,000	$ 400,000
Cost of earned revenue	450,000	350,000
Gross profit	$ 50,000	$ 50,000
% of gross profit	10%	12.5%
Year 3		
Earned revenue	$ 250,000	$ 275,000
Cost of earned revenue	225,000	250,000
Gross profit	$ 25,000	$ 25,000
% of gross profit	10%	9.1%
Balance Sheet Debit (Credit)		
Year 1		
Cost of uncompleted contracts and estimated profit in excess of billings	$ 125,000	
Unbilled revenues		$ 125,000
Year 2		
Excess of billings over costs incurred and estimated earnings on uncompleted contracts	$ (25,000)	
Excess billings		$ (25,000)

Discussion of the Results Under the Two Methods

Under Alternative A, earned revenue, cost of earned revenue, and gross profit are measured by the extent of progress toward completion. Under Alternative B, only the amount of gross profit is measured by the extent of progress toward completion. Therefore, the same amount of gross profit is reported under either method. However, under Alternative B, earned revenue is the amount of costs incurred during the period plus the amount of gross profit recognized based on the extent of progress toward completion, and the cost of earned revenue is the amount of costs incurred during the period. For that reason, earned revenue and cost of earned revenue under Alternative B are not comparable to the measurement of extent of progress toward completion unless the extent of progress is measured by the cost-to-cost method.

Except for differences in the descriptive account titles, the net balance sheet effect under the two methods is the same.

Appendix D

Examples of Computation of Income Earned

Exhibit Description	***Exhibit Number***
Cost-to-Cost Method	1
Labor-Hours Method	2
Construction Management	3
Unit Price	4
Zero Profit	5
Loss Contract	6
Combining	7
Segmenting	8

(For convenience and consistency, all computations are based on the Alternative A procedure)

Exhibit 1—Cost-to-Cost Method

A general contractor specializes in the construction of commercial and industrial buildings. The contractor is experienced in bidding long-term construction projects of this type, with the typical project lasting fifteen to twenty-four months. The contractor uses the percentage-of-completion method of revenue recognition since, given the characteristics of the contractor's business and contracts, it is the most appropriate method. That is, the contracts entered into by the contractor normally specify clearly the rights of the parties regarding services to be provided, consideration, etc.; and the contractor has demonstrated the ability to provide dependable estimates of contract revenue, contract costs, and gross profit. Progress toward completion is measured on the basis of incurred costs to estimated total costs since, in the opinion of management, this basis of measurement is most appropriate in the circumstances.

The company began work on a lump-sum contract at the beginning of year 1. As bid, the statistics were as follows:

Lump-sum price		$1,500,000
Estimated costs		
Labor	$300,000	
Materials and subcontractors	800,000	
Indirect costs	100,000	1,200,000
Estimated gross profit		$ 300,000

After construction began, a change order was negotiated, increasing the lump-sum price by $150,000 at an estimated additional contract cost of $120,000 (labor-$10,000, materials-$110,000).

At the end of the first year, the following was the status of the contract:

Billings to date		$ 800,000
Costs incurred to date		
Labor	$120,000	
Materials and subcontractors	478,000	
Indirect costs	50,000	648,000
Latest forecast total cost		1,320,000

Costs incurred to date include $40,000 for standard electrical and mechanical materials stored on the job site and $80,000 for steel in the fabricator's plant (including steel cost of $60,000 and labor cost of $20,000 based on 1,000 hours at $20 per hour). The steel is 100 percent complete and has been fabricated specifically to meet the unique requirements of this job.

Computations for the percentage-of-completion method follow:

$$\text{Measure of progress} = \frac{\text{Costs incurred to date}}{\text{Estimated total cost}}$$

$$= \frac{\$648{,}000 - \$40{,}000}{\$1{,}320{,}000}$$

$$= 46\%\text{ complete}$$

$$\text{Earned revenue} = 46\% \times (\$1{,}500{,}000 + \$150{,}000)$$

$$= \$759{,}000$$

$$\text{Cost of earned revenue} = 46\% \times (\$1{,}200{,}000 + \$120{,}000)$$

$$= \$608{,}000$$

The costs of the electrical and mechanical materials at the job site are excluded from "costs incurred to date" because the materials consist of stock items and have not yet become an integral part of the project; on the other hand, the $80,000 of steel is included in "costs incurred to date" because the steel is now specifically fabricated to meet the specifications of this project and, therefore, may be considered a part of the project at this point.

An entry is therefore required to reclassify the $40,000 cost of materials not installed from accumulated cost of contracts in progress to materials inventory. Also, an entry must be made to reflect earned revenue and related costs in the income and expense accounts. On the assumption that all costs related to the contract have been charged to the balance sheet account (the "costs of contracts in progress"), and all billings have been credited to the balance sheet account ("progress billings"), the following entry would be made:

	DR	*CR*
Cost of earned revenue	$608,000	
Estimated earnings on contracts in progress	151,000	
Earned revenue		$759,000

Assuming the contract is completed in the next year with no change in price or cost, the results would appear in the income statement as follows:

	Year 1	Year 2	Total
Progress measurement at end of year	46%	100%	
Contract operations			
Earned revenue	$759,000	$891,000	$1,650,000
Costs			
Labor	$120,000	$190,000	$ 310,000
Materials and subcontractors	438,000	472,000	910,000
Indirect costs	50,000	50,000	100,000
	$608,000	$712,000	$1,320,000
Gross profit	$151,000	$179,000	$ 330,000
Gross profit rate	20%	20%	20%

Exhibit 2—Labor-Hours Method

A general contractor specializes in the construction of industrial plants for manufacturing businesses. The construction period of the typical manufacturing facility ranges from thirteen to twenty months. Because of the nature of the construction contracts and the practices followed by the contractor, the contractor has determined that the percentage-of-completion method of revenue recognition is appropriate and that the labor-hours method is the best measure of progress toward completion.

Estimated labor hours must include the labor hours of the company as well as the labor hours of its subcontractors that produce goods specifically for the project. For example, labor hours incurred by a steel company in the production of standard items for the project are not included in total labor hours; however, labor hours incurred by a steel company in fabricating standard items specifically for the project are included in total hours. If management is unable to obtain accurate estimates of its own or all appropriate subcontractors' labor hours at the beginning of the project and as work progresses, the labor-hours method would not be appropriate.

The assumptions and data used in this illustration are identical to those used in Exhibit 1 except that the contractor uses the labor-hours method instead of the cost-to-cost method.

At the end of the first year, the company had incurred 6,000 labor hours, the steel fabricator 1,000 labor hours, and all other subcontractors 3,080 labor hours. Estimated total labor hours for the project are 21,000.

Computations under the percentage-of-completion method follow:

Measure of progress	=	$\frac{\text{Labor hours to date (10,080)}}{\text{Estimated total labor hours (21,000)}}$
Percentage complete	=	48%
Earned revenue	=	48% × ($1,500,000 + $150,000)
	=	$792,000
Cost of earned revenue	=	48% × ($1,200,000 + $120,000)
	=	$633,600

An entry is required to transfer the $40,000 cost of materials that have not entered into the revenue recognition process from accumulated cost of contracts in progress to materials inventory.

Materials inventory	$40,000	
Cost of contracts in progress		$40,000

After the adjustment, the balance in the cost-of-contracts-in-progress account is $608,000 ($648,000 - $40,000). However, since the cost of earned revenue is $633,600, an additional adjustment of $25,600 ($633,600 $608,000 = $25,600) is required to properly state the cost associated with the revenue earned for the period.

Cost of contract in progress	$25,600	
Liability for contract work to be performed		$25,600

Assuming that the contract is completed in the next fiscal year with no change in price or cost, the results would appear in the income statement:

	Year		
	1	*2*	*Total*
Contract operations			
Earned revenue	$792,000	$858,000	$1,650,000
Cost of revenue earned	633,600	686,400	1,320,000
Gross profit	$158,400	$171,600	$ 330,000

Exhibit 3—Construction Management

A construction company enters into a construction management contract for the construction of a paper mill. The contract is a cost-plus contract in which the contractor acts solely in the capacity of an agent and has no risks associated with the costs managed. That is, the contractor is not responsible for the nature, type, characteristics, or specifications of materials or for the ultimate acceptance of the project; moreover, the contractor's fee was based on the lack of risk inherent in the negotiated contract.

Consistent with the "risk-free" nature of the management contract, the company measures job progress based on the labor hours for which it has direct control. That is, only those labor hours incurred as a result of the actual management effort should be used to measure job progress. Thus, the hours incurred by the various contractors and subcontractors on the project do not enter into the measure of job progress from the construction manager's standpoint.

The contractor may accrue his fees as they become billable, assuming they are at a constant percentage of costs incurred. The following example, which assumes that the contractor employs the labor-hours method, gives the same results, since labor hours are the basis for fee reimbursement. Since he has no risks associated with subcontractors' work, their labor hours are excluded from the computation.

Assume:

Total estimated construction management hours	10,000	
Cost per hour (includes indirect costs)	$ 20	
Total estimated costs	$200,000	
Fee (15%)	30,000	
Total estimated revenue	$230,000	
At the end of the first year:		
Hours used	4,000	hrs.
Estimated total hours	10,000	hrs.
Measure of progress	40%	

If the contract is completed in the second year without any changes in contract revenues and costs, the results would appear in the income statement as follows:

	First Year	*Second Year*	*Total*
Contract revenues (hours used at $20 X 115%)	$92,000	$138,000	$230,000
Contract costs (includes indirect costs)	80,000	120,000	200,000
Gross profit (15%)	$12,000	$ 18,000	$ 30,000

Exhibit 4—Unit Price

A roadbuilder performs work primarily as a subcontractor on large highway projects. On those projects, the company's work consists only of laying concrete. All site preparation and other work is performed by the general contractor or by subcontractors to the general contractor. The cost elements include labor and related costs, cost of expansion and contraction joints, the cost of reinforcing steel, the cost of cement and other materials, and equipment costs. The company reports its income on the percentage-of-completion basis and measures progress toward completion on the basis of units of work completed, since all costs are incurred essentially equally as square yards of concrete are laid (with the exception of mobilization and demobilization costs, which are incurred at the beginning and end of the job).

A contract sets forth ten separate pay items, which, when totaled and converted to price per square yard of concrete, equal $12 per square yard for concrete that is to 9" thick. Estimated square yards of concrete to be laid approximate 450,000, and estimated total cost is $5,000,000. Costs incurred through the end of the first year on the contract, excluding mobilization costs, total $2,200,000, which includes $100,000 of materials not used. Mobilization costs incurred total $70,000, and projected demobilization costs total $30,000. Physical output, as reported by the state engineer and confirmed by the company engineer, totals 200,000 square yards at the end of the first year.

Input information (square yards of concrete poured) should not be used for determination of revenue since the company must lay the concrete in excess of 9" thick to meet state requirements that concrete not be less than 9" thick based on test borings; thus, input in terms of cubic yards poured would exceed billable output. Accordingly, the output measure (square yards laid) is the appropriate measure of progress.

The company's earned revenue and costs of earned revenue for the first year are computed on the following page.

$$\text{Measure of progress} = \frac{\text{Square yards laid}}{\text{Total square yards to be laid}}$$

$$= \frac{200{,}000}{450{,}000}$$

$$\text{Percentage complete} = 44\%$$

$$\text{Earned revenue} = 44\% \times \$5{,}400{,}000$$

$$= \$2{,}376{,}000$$

$$\text{Cost of earned revenue} = 44\% \times \$5{,}000{,}000$$

$$= \$2{,}200{,}000$$

Additional Considerations

If such a roadbuilder served as the prime contractor and performed all site preparation, sewer, and other related work, no single unit would appropriately measure progress toward completion. Some other method, such as labor hours or cost to cost, would be preferable.

If the cost-to-cost method is used, it is necessary to include the mobilization costs and to exclude the cost of the materials not used from the cost incurred in the measure of progress calculation. The computation is as follows:

$$\text{Measure of progress} = \frac{\text{Cost incurred to date}}{\text{Estimated total cost}}$$

$$= \frac{\$2{,}200{,}000 + \$70{,}000 - \$100{,}000}{\$5{,}000{,}000}$$

$$\text{Percentage complete} = 43\%$$

Exhibit 5—Zero Profit

A contractor has been awarded a fixed-price contract with escalation clauses for the construction of a housing project in Saudi Arabia. The contractor has no construction experience in that part of the world, and various uncertainties involving mobilization, procurement costs, and labor costs make it difficult to determine the amount of total contract revenue and costs. However, while the contractor is unable to estimate total contract costs as either a single amount or range of amounts, the terms of the contract provide protection for the contractor from incurring a loss under any reasonable circumstances. The contract price is $460,000,000.

For purposes of this illustration, it is assumed that there are no changes in estimates of contract revenues for the duration of the contract. The contractor is consistently using an acceptable measure of progress; and at the end of the first year relating to this contract, the project is considered to be 12 percent complete. Costs incurred to date are $67,200,000. Since inception there has been no improvement in the contractor's ability to estimate total costs in terms of a single amount or range of amounts.

Following is the status of the project for accounting purposes at the end of the first year:

Earned revenue (12% of $460,000,000)	$55,200,000
Cost of earned revenue	55,200,000
Gross profit	—
Deferred costs at end of year	$12,000,000

That portion of the cost incurred to date ($67,200,000) in excess of the cost of earned revenue ($55,200,000) is reported as a deferred cost in the balance sheet.

At the end of the second year, the contractor can estimate that the total contract costs will be between $410,000,000 and $440,000,000. The measure of work completed indicated that the project is 31 percent complete at that date. Costs incurred to date are $142,400,000.

Table 1 in this appendix gives the status of the project for accounting purposes at the end of the second year. The maximum estimated costs were used in accounting for the contract. The cumulative amount of earned revenue is $142,600,000 (31% of $460,000,000) and the cost of earned revenue is $136,400,000 (31% of $440,000,000). That portion of the cost incurred to date in excess of the cost of earned revenue is reported as a deferred cost in the balance sheet.

The change from the zero profit method is a change in estimate, and the effect of the change on the second year should be disclosed. In this illustration, the effect of the change is $1,200,000, computed as follows:

At the end of the first year, using revised estimates—

Earned revenue, 12 percent of $460,000,000	$55,200,000
Cost of earned revenue, 12 percent of $440,000,000	52,800,000
Gross profit	$ 2,400,000
Gross profit recognized to date	—
Effect of change in estimate, before tax effect	$ 2,400,000
Tax effect, at assumed 50 percent rate	1,200,000
Effect of change in estimate, after tax effect	$ 1,200,000

Table 2 in this appendix is a summary of the contract for the first and second years and the remaining years to completion. For this purpose, it is assumed there are no subsequent changes in estimates of contract costs from the $440,000,000 maximum estimate at the end of the second year.

Table 1

	First Year	Second Year	Total
Earned revenue	$ 55,200,000	$ 87,400,000	$ 142,600,000
Cost of earned revenue	55,200,000	81,200,000	136,400,000
Gross profit	$ —	$ 6,200,000	$ 6,200,000
Deferred costs	$ 12,000,000	$ 6,000,000	

Table 2

	First Year	Second Year	Remaining Years to Completion	Total
Earned revenue	$ 55,200,000	$ 87,400,000	$ 317,400,000	$ 460,000,000
Cost of earned revenue	55,200,000	81,200,000	303,600,000	440,000,000
Gross profit	$ —	$ 6,200,000	$ 13,800,000	$ 20,000,000
Deferred costs at end of year	$ 12,000,000	$ 6,000,000	$ —	$ —

Exhibit 6—Loss Contract

A contractor specializes in underground construction work. As a rule, the projects on which the contractor works take from two to three years to complete. The contractor uses the percentage-of-completion method of revenue recognition since, given the contractor's ability to estimate contract costs, revenue, and progress, it is the most appropriate method. Furthermore, the contractor's standard contract normally includes provisions that specify the enforceable rights regarding the work to be performed, consideration, and terms of settlement. Taken in combination, these factors provide a sound basis for the use of percentage-of-completion.

In 19X7 the contractor obtained a contract for $1,620,000. Profit was estimated at $243,000. At December 31, 19X7, $500,000 had been billed, costs of $510,000 had been incurred, and estimated costs to complete were projected to be $867,000, resulting in the projected profit of $243,000. The cost to complete was determined by the job superintendent and was checked against engineering estimates of units of work completed and units of work to be completed. During 19X8 the company encountered heavy rains, worse than anticipated soil conditions, and field supervision problems. As a result of this, a loss of $60,000 was projected at the completion of the project. At December 31, 19X8, billings of $1,480,000 had been made, costs of $1,550,000 had been incurred, and costs to complete were estimated at $130,000.

Using the foregoing information, the percentage of completion is computed below for both years, using the cost-to-cost method to measure progress. The cost-to-cost method is used in this situation because management believes it provides the most accurate measure of job progress under the current contract conditions.

19X7

$$\text{Measure of progress} = \frac{\text{costs incurred to date}}{\text{total estimated costs}}$$

$$= \frac{\$\ 510{,}000}{\$1{,}377{,}000} = 37\%$$

19X8

$$\text{Measure of progress} = \frac{\$1{,}550{,}000}{\$1{,}680{,}000} = 92\%$$

In view of the fact that a loss will be incurred, it is necessary that the entire amount of the estimated loss at December 31, 19X8, be accrued since generally accepted accounting principles require that a provision for the entire estimated loss on each contract should be made in the period in which the loss becomes evident. The entry to record the loss follows:

	DR	*CR*
Provision for loss on uncompleted contract (income statement)	$60,000	
Estimated losses on uncompleted contracts (balance sheet)		$60,000

For income statement purposes, the provision for loss can be included in related costs; however, if the amount is material, consideration should be given to disclosing the amount as a separate line item or in the notes to financial statements.

Work under the contract is completed in 19X9, and there are no further changes in contract revenues and costs. A loss of $ 60,000 was incurred on the contract.

The computation of earned revenue, job costs, and gross profit for income statement purposes is shown below:

	Current Year	*Total-to-Date*
19X7 (37% completed)		
Earned revenue ($1,620,000 × 37%)	$ 599,400	$ 599,400
Cost of earned revenue ($1,377,000 × 37%)	509,490	509,490
Gross profit	$ 89,910	$ 89,910
Gross profit rate	15%	15%
19X8 (92% completed)		
Earned revenue ($1,620,000 × 92%)	$ 891,000	$ 1,490,400
Cost of earned revenue (Note)	1,040,910	1,550,400
Gross profit	$ (149,910)	$ (60,000)
Gross profit rate	(16.8%)	(4%)
19X9 (100% completed)		
Earned revenue ($1,620,000 × 100%)	$ 129,600	$ 1,620,000
Cost of earned revenue ($1,620,000 × 100% plus loss)	129,600	1,680,000
Gross profit	$ -0-	$ (60,000)
Gross profit rate	—	(3.7%)

Note: The cost of earned revenue at the end of 19X8, the year in which the estimated loss became known, is computed as follows:

Estimated total cost to extent of total estimated revenue	$1,620,000
Measure of progress	× 92%
Cost of earned revenue before loss provision	$1,490,400
Add estimated total loss	60,000
Cost of earned revenue	$1,550,400

Exhibit 7—Combining

A contractor who specializes in the construction of multi-family residential and commercial properties was approached by a prospective customer late in the fall to discuss the construction of a residential housing and shopping center project. They arrived at general conceptual agreement as to the nature of the work and appropriate timing and magnitude of cost estimates for the project. After the meeting, the project developer obtained the final members of the investment groups for the properties, and drawings and building specifications were then completed. The contractor was awarded the job, but under separate contracts for the apartment complex portion of the project and the shopping center. The developer explained that he needed separate contracts due to financing requirements and in order to maximize tax benefits for the investors.

When presented the contracts, the contractor stated that the breakdown of price between the two sections of the project was not in agreement with his pricing structure. However, the contractor noted that the combined contract prices resulted in a gross profit that was satisfactory to him. Because of this and since the work on the separate phases would be performed in a relatively common time frame, he signed the contracts as they were prepared. Before signing the contracts, though, the contractor told the developer that it would not be practical to separate costs between the two projects, since the same work crew and same machinery would be used jointly on the two phases. The contractor concluded that it would be appropriate to account for the two projects on a combined basis and report his financial results accordingly.

Estimated total contract revenues and costs for the two contracts are as follows:

	Apartment Project	*Shopping Center*	*Total*
Estimated contract revenue	$5,000,000	$2,000,000	$7,000,000
Estimated contract costs	4,000,000	1,800,000	5,800,000
Estimated gross profit	$1,000,000	$ 200,000	$1,200,000
Gross profit rate	20%	10%	17%

For purposes of this illustration, it is assumed that there are no changes in estimates of contract revenues or costs for the duration of the contracts and that the contractor uses the labor-hours method in determining percentage of completion. At the end of the first year relating to the two contracts, the following is their status.

	Apartment Project	*Shopping Center*	*Total*
Labor hours incurred to date	45,000	15,000	60,000
Estimated total contract labor hours	80,000	20,000	100,000
Measure of progress	56.25%	75%	60%

Based on the foregoing, the recognized revenue, cost, and gross profit for the combined contract for the first fiscal year and for the second fiscal year of the contract is as follows:

	First Year	*Second Year*	*Total*
Year 1 (60% completed)			
Earned Revenue (60% × $7,000,000)	$4,200,000		$4,200,000
Cost of earned revenue (60% × $5,800,000)	3,480,000		3,480,000
Gross Profit	$ 720,000		$ 720,000
Gross profit rate	17%		17%
Year 2 (100% complete)			
Earned Revenue ($7,000,000 × 100%)	$4,200,000	$2,800,000	$7,000,000
Cost of earned revenue ($5,800,000 × 100%)	3,480,000	2,320,000	5,800,000
Gross profit	$ 720,000	$ 480,000	$1,200,000
Gross profit rate	17%	17%	17%

If the contracts had not been combined, the following differences would have occurred in the revenue, costs, and gross profit reported at the end of year 1.

	Earned Revenue	*Cost of Earned Revenue*	*Gross Profit*
Apartment Project (56.25% complete)	$2,812,500	$2,250,000	$562,500
Shopping Center (75% complete)	1,500,000	1,350,000	150,000
Total	$4,312,500	$3,600,000	$712,500
Amounts reported under combining	$4,200,000	$3,480,000	$720,000
Difference in amounts at end of first year if contracts had not been combined	$ 112,500	$ 120,000	$ 7,500

Exhibit 8—Segmenting

A company specializes in the engineering, procurement of materials, and construction of chemical processing plants. The company has been awarded one such contract, which is priced at cost, plus 10 percent allowances for indirect costs on engineering and procurement phases and a fixed fee of $225,000. The scope of the contract calls for those separable phases of the work. Contract provisions state that the fixed fee was agreed to on the basis of the following rates:

	Base Cost	*Fee Rate*	*Fee*
Engineering	$ 176,000	25.00%	$ 44,000
Procurement	44,000	2.00%	880
Construction	4,800,000	3.75%	180,120
	$5,020,000		$225,000

Estimated total contract revenue is computed as follows:

Engineering	
8000 hours at $20	$ 160,000
Allowance for indirect costs	16,000
Procurement	
2000 hours at $20	40,000
Allowance for indirect costs	4,000
Construction, including labor, materials, subcontract, and indirect costs	4,800,000
	$5,020,000
Fixed fee	225,000
	$5,245,000

The contractor meets the criteria for segmenting. In addition to the contract specifying the separate phases of the work, such phases are frequently contracted separately, and the contractor has a significant history of providing the engineering services to other customers separately. Such a history shows a relatively stable pricing policy. The similarity of services and prices on the contract segments to services and the prices of such services to other customers contracted separately is documented and verifiable. In the past the contractor's normal fees have been 15 percent on engineering, 2 percent on procurement, and 5 percent on construction. Those rates are commensurate with the different levels of risk attributable to the separate phases of the work. A comparison of the aggregate of the values of the separate phases of the contract that would have been produced from such a fee structure to the contractual fee arrangement is as follows:

		Contract Revenue	*Fee*
Engineering			
Direct costs	$ 160,000		
Allowance for indirect costs	16,000		
	$ 176,000		
Normal fee, at 15%	26,400	$ 202,400	$ 26,400
Procurement			
Direct costs	$ 40,000		
Allowance for indirect costs	4,000		
	$ 44,000		
Normal fee, at 2%	880	44,880	880
Construction (total costs)	$4,800,000		
Normal fee, at 5%	240,000	5,040,000	240,000
		$5,287,280	$267,280
Estimated total contract revenue and fee		5,245,000	225,000
Excess of the sum of the prices of the separate elements over estimated total contract revenues		$ 42,280	$ 42,280

This excess is attributable to cost savings incident to performance as a single project. The contractor segments revenues into the three profit centers in the manner set forth in the following table. Note that the contract-provision stipulating a 25 percent profit margin for engineering is not used, since that margin is not supported by historical experience.

	Engineering	*Procurement*	*Construction*	*Total*
Normal historical fee, as stated above	$ 26,400	$ 880	$ 240,000	$ 267,280
Less reduction to reflect allocation of the excess amount, in proportion to the above prices	(4,176)	(139)	(37,965)	(42,280)
Adjusted fee	$ 22,224	$ 741	$ 202,035	$ 225,000
Estimated total cost	176,000	44,000	4,800,000	5,020,000
Estimated total contract revenue, as adjusted	$198,224	$44,741	$5,002,035	$5,245,000

For purposes of this illustration, it is assumed that there are no changes in estimates of contract revenues, costs, and labor hours for the duration of the contract. The contractor uses the labor-hours method in determining measure of progress. Construction hours include the hours of the construction manager, the general contractor, and all subcontractors. At the end of the first year, the following is the contract status:

Profit Center	*Labor Hours Incurred to Date*	*Estimated Total Labor Hours*	*Measure of Progress*
Engineering	40,000 hrs.	44,000 hrs.	90.9%
Procurement	5,500	11,000	50.0%
Construction	75,000	600,000	12.5%
	120,500 hrs.	655,000 hrs.	18.4%

Recognized revenues, costs, and gross profit for the first fiscal period are as follows:

Profit Center	*Recognized Revenues*	*Cost Incurred*	*Gross Profit*
Engineering			
90.9% of estimated total revenues	$180,186		
90.9% of estimated total costs		$159,984	$20,202
Procurement			
50.0% of estimated total revenues	$ 22,370		
50.0% of estimated total costs		$ 22,000	$ 370
Construction			
12.5% of estimated total revenues	$625,254		
12.5% of estimated total costs		$600,000	$25,254
	$827,810	$781,984	$45,826

Assuming the contract is completed in the second fiscal period, recognized revenues, costs, and gross profit for the two fiscal periods would be as follows:

Profit Center	*Year 1*	*Year 2*	*Total*
Engineering			
Earned revenue	$180,186	$ 18,038	$ 198,224
Cost of earned revenue	159,984	16,016	176,000
Gross profit	$ 20,202	$ 2,022	$ 22,224
Procurement			
Earned revenue	$ 22,370	$ 22,371	$ 44,741
Cost of earned revenue	22,000	22,000	44,000
Gross profit	$ 370	$ 371	$ 741
Construction			
Earned revenue	$625,254	$4,376,781	$5,002,035
Cost of earned revenue	600,000	4,200,000	4,800,000
Gross profit	$ 25,254	$ 176,781	$ 202,035
Total Contract			
Earned revenue	$827,810	$4,417,190	$5,245,000
Cost of earned revenue	781,984	4,238,016	5,020,000
Gross profit	$ 45,826	$ 179,174	$ 225,000

If the contract had not been segmented, recognized revenues for year 1 would have been revised as follows:

Earned revenue (18.4% complete × $5,245,000)	$965,080
Costs of revenue (18.4% complete × $5,020,000)	923,680
Gross profit without segmenting	$ 41,400
Gross profit under segmenting	45,826
Additional gross profit under segmenting—year 1	$ 4,426

Appendix E

Example of Change in Accounting Estimate

Accounting Principles Board Opinion No. 20, *Accounting Changes,* requires that a change in accounting estimate be accounted for in (*a*) the period of change if the change affects that period only or (*b*) the period of the change and future periods if the change affects both. Paragraph 33 of Accounting Principles Board Opinion No. 20 requires disclosure of the effect on income before extraordinary items, net income, and the related per share amounts of the current period for a change in an accounting estimate that affects several future periods, such as a change in service lives of depreciable assets or in actuarial assumptions affecting pension costs. Accounting Principles Board Opinion No. 20 does not require, but recommends, disclosure of the effect on those income statement amounts of changes in accounting estimates made each period in the ordinary course of accounting for such items as uncollectible accounts or inventory obsolescence.

An illustrative example of the calculation and disclosure of the effects of an accounting change is as follows:

Assume, at the end of year 1:	*(in thousands)*
Contract revenue, at 50% complete	$ 50,000
Contract costs	45,000
Recognized profit	$ 5,000
Assume, at the end of year 2:	
Contract revenue (cumulative), at 90% complete	$105,000
Contract costs (cumulative)	90,000
Recognized profit, cumulative	$ 15,000
Recognized profit, year 2	$ 10,000

At the end of year 1, contract revenues at completion were estimated to be $100,000,000 (contract price) and contract costs at completion were estimated to be $90,000,000. However, at the end of year 2, contract revenues at completion were estimated to be $116,667,000, and contract costs were estimated to be $100,000,000. A change order agreed to in the second year added $16,667,000 to estimated total revenues and $7,000,000 to estimated total costs. Because of inefficiencies not known at the end of year 1, it was later determined that estimated total contract costs (excluding the change order) should have been $93,000,000 and that the percentage of completion should have been 48.4 percent rather than 50 percent at the end of year 1.

	Revenues (in thousands)	Costs *(in thousands)*
Change order (agreed to in second year)	$ 16,667	$ 7,000
Revised estimate (made after change order)		3,000
Estimates of revenues and cost at completion — year 1	100,000	90,000
Estimates of revenues and costs at completion — year 2	$116,667	$100,000

The calculation of the effects of the changes in estimates on year 2 net income follows. The effect of the change order is excluded from the calculation since it is clearly a year 2 event. However, in most circumstances change orders would not have to be eliminated since their effect would be immaterial.

	(in thousands)
At the end of year 1, using revised estimates:	
Contract revenues (original contract)	$100,000
Contract costs (original contract)	93,000
Estimated total profit	$ 7,000
Percent complete (revised estimate)	48.4
Recognizable profit	$ 3,388
Profits recognized originally	5,000
Effect of change in estimate, before income taxes	$ 1,612
Income taxes at 50%	806
Effect of change in estimate	$ 806

The following is an example of disclosure of the effect of this change:

> Revisions in estimated contract profits are made in the year in which circumstances requiring the revision become known. The effect of changes in estimates of contract profits was to decrease net income of 19X2 by $806,000 ($.12 per share) from that which would have been reported had the revised estimate been used as the basis of recognition of contract profits in the preceding year.

Appendix F

Sample Financial Statements Percentage Contractors, Inc.

Independent Auditor's Report

The Shareholders and Board of Directors
Percentage Contractors, Inc.

We have audited the accompanying consolidated balance sheets of Percentage Contractors, Inc., and subsidiaries as of December 31, 19X8 and 19X7, and the related consolidated statements of income and retained earnings and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Percentage Contractors, Inc., and subsidiaries as of [at] December 31, 19X8 and 19X7, and the results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles.

(Firm Signature)
Certified Public Accountants

City, State
February 18, 19X9

Percentage Contractors, Inc.
Consolidated Balance Sheets
December 31, 19X8 and 19X7

Assets	*19X8*	*19X7*
Cash	$ 264,100	$ 221,300
Certificates of deposit	40,300	
Contract receivables (Note 2)	3,789,200	3,334,100
Costs and estimated earnings in excess of billings on uncompleted contracts (Note 3)	80,200	100,600
Inventory, at lower of cost, on a first-in, first-out basis, or market	89,700	99,100
Prepaid charges and other assets	118,400	83,200
Advances to and equity in joint venture (Note 4)	205,600	130,700
Note receivable, related company (Note 5)	175,000	150,000
Property and equipment, net of accumulated depreciation and amortization (Note 6)	976,400	1,019,200
	$ 5,738,900	$ 5,138,200

Liabilities and Shareholders' Equity	*19X8*	*19X7*
Notes payable (Note 8)	$ 468,100	$ 578,400
Lease obligations payable (Note 9)	197,600	251,300
Accounts payable (Note 7)	2,543,100	2,588,500
Billings in excess of costs and estimated earnings on uncompleted contracts (Note 3)	242,000	221,700
Accrued income taxes payable	52,000	78,600
Other accrued liabilities	36,600	36,000
Due to consolidated joint venture minority interests	154,200	26,200
Deferred income taxes (Note 13)	619,200	408,000
	4,312,800	4,188,700
Contingent liability (Note 10)		
Shareholders' equity		
Common stock — $1 par value, 500,000 authorized shares, 300,000 issued and outstanding shares	300,000	300,000
Retained earnings	1,126,100	649,500
Total shareholders' equity	1,426,100	949,500
	$ 5,738,900	$ 5,138,200

The accompanying notes are an integral part of these financial statements.

Percentage Contractors, Inc.
Consolidated Statements of Income and Retained Earnings
Years Ended December 31, 19X8 and 19X7

	19X8	*19X7*
Contract revenues earned	$22,554,100	$16,225,400
Cost of revenues earned	20,359,400	14,951,300
Gross profit	2,194,700	1,274,100
Selling, general, and administrative expense	895,600	755,600
Income from operations	1,299,100	518,500
Other income (expense)		
Equity in earnings from unconsolidated joint venture	49,900	5,700
Gain on sale of equipment	10,000	2,000
Interest expense (net of interest income of $8,800 in 19X8 and $6,300 in 19X7)	(69,500)	(70,800)
	(9,600)	(63,100)
Income before taxes	1,289,500	455,400
Provision for income taxes (Note 13)	662,900	225,000
Net income (per share, $2.09 (19X8); $.77 (19X7))	626,600	230,400
Retained earnings, beginning of year	649,500	569,100
	1,276,100	799,500
Less: Dividends paid (per share, $.50 (19X8); $.50 (19X7))	150,000	150,000
Retained earnings, end of year	$ 1,126,100	$ 649,500

The accompanying notes are an integral part of these financial statements.

Percentage Contractors, Inc.
Statements of Cash Flows
(Indirect Method)

	Years Ended December 31, 19X8	19X7
Cash flows from operating activities:		
Net income	$ 626,600	$ 230,400
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	167,800	153,500
Provision for losses on accounts receivable	6,300	1,100
Gain on sale of equipment	(10,000)	(2,000)
Increase (decrease) in deferred taxes	211,200	(75,900)
Increase (decrease) in taxes payable	(26,600)	(2,400)
Equity earnings from unconsolidated joint venture	(49,900)	(5,700)
Increase in contract receivables	(461,400)	(10,200)
Net increase in billings related to costs and estimated earnings on uncompleted contracts	40,700	10,500
Decrease (increase) in inventory	9,400	(3,600)
Decrease (increase) in prepaid charges and other assets	(35,200)	16,100
Increase (decrease) in accounts payable	(45,400)	113,200
Increase in other accrued liabilities	600	21,200
Net cash provided by operating activities	434,100	446,200
Cash flows from investing activities:		
Proceeds of equipment sold	25,000	5,000
Acquisition of equipment	(140,000)	(175,000)
Advances to joint venture	(25,000)	(9,700)
Increase in note receivable related company	(25,000)	(50,000)
Net cash used in investing activities	(165,000)	(229,700)
Cash flows from financing activities:		
Principal payments on notes payable	(110,300)	(90,300)
Principal payments under capital lease obligation	53,700	(9,700)
Increase in joint venture minority interest	128,000	26,200
Cash dividends paid	(150,000)	(150,000)
Net cash used in financing activities	(186,000)	(223,800)
Net increase (decrease) in cash and certificates of deposit	83,100	(7,300)
Cash at beginning of year	221,300	228,600
Cash and certificates of deposit at end of year	$ 304,400	$ 221,300

Supplemental data:

Cash equivalents include certificates of deposit with original maturities of one to three months—

Interest paid—19X8, $73,500; 19X7, $75,100

Income taxes paid—19X8, $478,300; 19X7, $313,200

The accompanying notes are an integral part of the financial statements.

Percentage Contractors, Inc.
Notes to Consolidated Financial Statements
December 31, 19X8 and 19X7

1. Significant Accounting Policies

Company's activities and operating cycle. The company is engaged in a single industry: the construction of industrial and commercial buildings. The work is performed under cost-plus-fee contracts, fixed-price contracts, and fixed-price contracts modified by incentive and penalty provisions. These contracts are undertaken by the company or its wholly owned subsidiary alone or in partnership with other contractors through joint ventures. The company also manages, for a fee, construction projects of others.

The length of the company's contracts varies but is typically about two years. Therefore, assets and liabilities are not classified as current and noncurrent because the contract-related items in the balance sheet have realization and liquidation periods extending beyond one year.

Principles of consolidation. The consolidated financial statements include the company's majority-owned entities, a wholly owned corporate subsidiary and a 75 percent-owned joint venture (a partnership). All significant intercompany transactions are eliminated. The company has a minority interest in a joint venture (partnership), which is reported on the equity method.

Revenue and cost recognition. Revenues from fixed-price and modified fixed-price construction contracts are recognized on the percentage-of-completion method, measured by the percentage of labor hours incurred to date to estimated total labor hours for each contract.* This method is used because management considers expended labor hours to be the best available measure of progress on these contracts. Revenues from cost-plus-fee contracts are recognized on the basis of costs incurred during the period plus the fee earned, measured by the cost-to-cost method.

Contracts to manage, supervise, or coordinate the construction activity of others are recognized only to the extent of the fee revenue. The revenue earned in a period is based on the ratio of hours incurred to the total estimated hours required by the contract.

Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs, and depreciation costs. Selling, general, and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions, and estimated profitability, including those arising from contract penalty provisions, and final contract settlements may result in revisions to costs and income and are recognized in the period in which the revisions are determined. Profit incentives are included in revenues when their realization is reasonably assured. An amount equal to contract costs attributable to claims is included in revenues when realization is probable and the amount can be reliably estimated.

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* There are various other alternatives to the percentage of labor hours method for measuring percentage of completion, which, in many cases, may be more appropriate in measuring the extent of progress toward completion of the contract (labor dollars, units of output, and the cost-to-cost method and its variations).

The asset, "Costs and estimated earnings in excess of billings on uncompleted contracts," represents revenues recognized in excess of amounts billed. The liability, "Billings in excess of costs and estimated earnings on uncompleted contracts," represents billings in excess of revenues recognized.

Property and equipment. Depreciation and amortization are provided principally on the straight-line method over the estimated useful lives of the assets. Amortization of leased equipment under capital leases is included in depreciation and amortization.

Pension plan. The company has a pension plan covering substantially all employees not covered by union-sponsored plans. Pension costs charged to earnings include current-year costs and the amortization of prior-service costs over 30 years. The company's policy is to fund the costs accrued.

Income taxes. Deferred income taxes are provided for differences in timing in reporting income for financial statement and tax purposes arising from differences in the methods of accounting for construction contracts and depreciation.

Construction contracts are reported for tax purposes on the completed-contract method and for financial statement purposes on the percentage-of-completion method. Accelerated depreciation is used for tax reporting, and straight-line depreciation is used for financial statement reporting.

Investment tax credits are applied as a reduction to the current provision for federal income taxes using the flow-through method.

2. Contract Receivables

	December 31, 19X8	*December 31, 19X7*
Contract receivables		
Billed		
Completed contracts	$ 621,100	$ 500,600
Contracts in progress	2,146,100	1,931,500
Retained	976,300	866,200
Unbilled	121,600	105,400
	3,865,100	3,403,700
Less: Allowances for doubtful collections	75,900	69,600
	$3,789,200	$3,334,100

Contract receivables at December 31, 19X8, include a claim, expected to be collected within one year, for $290,600 arising from a dispute with the owner over design and specification changes in a building currently under construction. The changes were made at the request of the owner to improve the thermal characteristics of the building and, in the opinion of counsel, gave rise to a valid claim against the owner.

The retained and unbilled contract receivables at December 31, 19X8, included $38,600 that was not expected to be collected within one year.

3. Costs and Estimated Earnings on Uncompleted Contracts

	December 31, 19X8	*December 31, 19X7*
Costs incurred on uncompleted contracts	$15,771,500	$12,165,400
Estimated earnings	1,685,900	1,246,800
	17,457,400	13,412,200
Less: Billings to date	17,619,200	13,533,300
	$ (161,800)	$ (121,100)
Included in accompanying balance sheets under the following captions:		
Costs and estimated earnings in excess of billings on uncompleted contracts	$80,200	$100,600
Billings in excess of costs and estimated earnings on uncompleted contracts	(242,000)	(221,700)
	$ (161,800)	$ (121,100)

4. Advances to and Equity in Joint Venture

The company has a minority interest (one-third) in a general partnership joint venture formed to construct an office building. All of the partners participate in construction, which is under the general management of the company. Summary information on the joint venture follows:

	December 31, 19X8	*December 31, 19X7*
Current assets	$ 483,100	$280,300
Construction and other assets	220,500	190,800
	703,600	471,100
Less: Liabilities	236,800	154,000
Net assets	$ 466,800	$317,100
Revenue	$3,442,700	$299,400
Net income	$ 149,700	$ 17,100
Company's interest		
Share of net income	$ 49,900	$ 5,700
Advances to joint venture	$ 50,000	$ 25,000
Equity in net assets	155,600	105,700
Total advances and equity	$ 205,600	$130,700

(For the purposes of illustrative financial statements, the one-line equity method of presentation is used in both the balance sheet and the income statement. However, the pro rata consolidation method is acceptable if the investment is deemed to represent an undivided interest.)

5. Transactions With Related Party

The note receivable, related company, is an installment note bearing annual interest at 9¼%, payable quarterly, with the principal payable in annual installments of $25,000, commencing October 1, 19Y0.

The major stockholder of Percentage Contractors, Inc. owns the majority of the outstanding common stock of this related company, whose principal activity is leasing land and buildings. Percentage Contractors, Inc., rents land and office facilities from the related company on a ten-year lease ending September 30, 19Y6, for an annual rental of $19,000.

6. Property and Equipment

	December 31, 19X8	*December 31, 19X7*
Assets		
Land	$ 57,500	$ 57,500
Buildings	262,500	262,500
Shop and construction equipment	827,600	727,600
Automobiles and trucks	104,400	89,100
Leased equipment under capital leases	300,000	300,000
	1,552,000	1,436,700
Accumulated depreciation and amortization		
Buildings	140,000	130,000
Shop and construction equipment	265,600	195,500
Automobiles and trucks	70,000	42,000
Leased equipment under capital leases	100,000	50,000
	575,600	417,500
Net property and equipment	$ 976,400	$1,019,200

7. Accounts Payable

Accounts payable include amounts due to subcontractors, totaling $634,900 at December 31, 19X8, and $560,400 at December 31, 19X7, which have been retained pending completion and customer acceptance of jobs. Accounts payable at December 31, 19X8, include $6,500 that are not expected to be paid within one year.

8. Notes Payable*

	December 31, 19X8	*December 31, 19X7*
Unsecured note payable to bank, due in quarterly installments of $22,575 plus interest at 1% over prime	$ 388,100	$ 478,400
Note payable to bank, collateralized by equipment, due in monthly installments of $1,667 plus interest at 10% through January, 19Y3	80,000	100,000
	$ 468,100	$ 578,400

At December 31, 19X8, the payments due within one year totaled $110,300.

* FASB Statement No. 47, *Disclosure of Long-Term Obligations,* also requires disclosure of maturities of long-term obligations for each of the five years following the balance sheet date.

9. Lease Obligations Payable

The company leases certain specialized construction equipment under leases classified as capital leases. The following is a schedule showing the future minimum lease payments under capital leases by years and the present value of the minimum lease payments as of December 31, 19X8:

Year ending December 31	
19X9	$ 76,500
19Y0	76,500
19Y1	76,500
Total minimum lease payments	229,500
Less: Amount representing interest	31,900
Present value of minimum lease payments	$197,600

At December 31, 19X8, the present value of minimum lease payments due within one year is $92,250.

Total rental expense, excluding payments on capital leases, totaled $86,300 in 19X8 and $74,400 in 19X7.

10. Contingent Liability

A claim for $180,000 has been filed against the company and its bonding company arising out of the failure of a subcontractor of the company to pay its suppliers. In the opinion of counsel and management, the outcome of this claim will not have a material effect on the company's financial position or results of operations.

11. Pension Plan

[Deleted—See FASB Statement No. 87, *Employers' Accounting for Pensions*, for current disclosure requirements.]

12. Management Contracts

The company manages or supervises commercial and industrial building contracts of others for a fee. These fees totaled $121,600 in 19X8 and $1,700 in 19X7 and are included in contract revenues earned.

13. Income Taxes and Deferred Income Taxes

NOTE: See FASB Statement No. 109, *Accounting for Income Taxes*, for disclosure requirements that are applicable for fiscal years beginning after December 15, 1992.

The provision for taxes on income consists of the following:

	December 31, 19X8	*December 31, 19X7*
Currently payable, net of investment credits of $9,400 and $13,800	$451,700	$300,900
Deferred		
Contract related	204,200	(80,900)
Property and equipment related	7,000	5,000
	$662,900	$225,000

At December 31 of the respective years, the components of the balance of deferred income taxes were:

	December 31, 19X8	December 31, 19X7
Contract related	$594,000	$389,800
Property and equipment related	25,200	18,200
	$619,200	$408,000

14. Backlog

The following schedule shows a reconciliation of backlog representing signed contracts, excluding fees from management contracts, in existence at December 31, 19X7 and 19X8:*

Balance, December 31, 19X7	$24,142,600
Contract adjustments	1,067,100
New contracts, 19X8	3,690,600
	28,900,300
Less: Contract revenue earned, 19X8	22,432,500
Balance, December 31, 19X8	$ 6,467,800

In addition, between January 1, 19X9 and February 18, 19X9, the company entered into additional construction contracts with revenues of $5,332,800.

* The presentation of backlog information, although encouraged, is not a required disclosure.

Appendix G

Sample Accompanying Information

Percentage Contractors, Inc.

Independent Auditor's Report on Accompanying Information

The Shareholders and Board of Directors
Percentage Contractors, Inc.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The (identify *accompanying* information) is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

(*Firm Signature*)
Certified Public Accountants

City, State
February 18, 19X9

Percentage Contractors, Inc.
Schedule 1
Earnings from Contracts
Year Ended December 31, 19X8

	19X8			*19X7*
	Revenues earned	*Cost of revenues earned*	*Gross profit (loss)*	*Gross profit (loss)*
Contracts completed during the year	$ 6,290,800	$ 5,334,000	$ 956,800	$ 415,300
Contracts in progress at year-end	16,141,700	14,636,900	1,504,800	921,400
Management contract fees earned	121,600	51,800	69,800	1,700
Unallocated indirect and warranty costs		46,700	(46,700)	(38,100)
Minority interest in joint venture		128,000	(128,000)	(26,200)
Charges on prior year contracts		162,000	(162,000)	
	$22,554,100	$20,359,400	$2,194,700	$1,274,100

Percentage Contractors, Inc.
Schedule 2
Contracts Completed
Year Ended December 31, 19X8

Contract		*Contract totals*			*Before January 1, 19X8*			*During the year ended December 31, 19X8*		
Number	*Type*	*Revenues earned*	*Cost of revenues*	*Gross profit (loss)*	*Revenues earned*	*Cost of revenues*	*Gross profit (loss)*	*Revenues earned*	*Cost of revenues*	*Gross profit (loss)*
1511	B	$ 5,475,300	$ 4,802,500	$ 672,800	$ 3,223,400	$ 2,932,700	$ 290,700	$ 2,251,900	$ 1,869,800	$ 382,100
1605	A	695,000	880,900	(185,900)	596,100	558,100	38,000	98,900	322,800	(223,900)
1624	A	140,700	150,700	(10,000)	29,600	31,800	(2,200)	111,100	118,900	(7,800)
1711	A	2,725,100	2,391,700	333,400	1,654,100	1,510,000	144,100	1,071,000	881,700	189,300
1791	B	4,770,100	4,288,900	481,200	3,028,500	2,929,600	98,900	1,741,600	1,359,300	382,300
1792	A	635,000	457,900	177,100				635,000	457,900	177,100
Small contracts		413,400	349,500	63,900	32,100	25,900	6,200	381,300	323,600	57,700
		$ 14,854,600	$ 13,322,100	$ 1,532,500	$ 8,563,800	$ 7,988,100	$ 575,700	$ 6,290,800	$ 5,334,000	$ 956,800

Contract types
A—Fixed-price
B—Cost-plus-fee

Percentage Contractors, Inc.
Schedule 3
Contracts in Progress
December 31, 19X8

Contract		Total contract		From inception to December 31, 19X8						At December 31, 19X8		For the year ended December 31, 19X8		
Number	Type	Revenues	Estimated gross profit (loss)	Revenues earned	Total costs incurred	Cost of revenues	Gross profit (loss)	Billed to date	Estimated cost to complete	Costs and estimated earnings in excess of billings	Billings in excess of costs and estimated earnings	Revenues earned	Cost of revenues	Gross profit (loss)
1845	A	$ 6,750,200	$ 877,000	$ 5,890,500	$ 5,244,500	$ 5,143,900	$ 746,600	$ 5,976,000	$ 628,700	$ 15,100		$ 5,664,200	$ 4,984,500	$ 679,700
1847	B	1,471,800	127,100	1,250,400	1,139,800	1,139,800	110,600	1,195,800	204,900	54,600		962,800	899,000	63,800
1912	A	451,800	(130,100)	108,600	238,700	238,700	(130,100)	98,100	343,200	10,500		98,600	191,500	(92,900)
1937	B	11,125,000	847,900	7,337,900	7,045,500	6,721,100	616,800	7,808,000	3,231,600		$ 145,700	6,981,900	6,469,900	512,000
1945	A	3,650,100	497,000	2,395,200	2,061,300	2,061,300	333,900	2,491,500	1,091,800		96,300	2,395,200	2,061,300	333,900
Small contracts		51,300	8,400	49,800	41,700	41,700	8,100	49,800	1,200			39,000	30,700	8,300
		$ 23,500,200	$ 2,227,300	$ 17,032,400	$ 15,771,500	$ 15,346,500	$ 1,685,900	$ 17,619,200	$ 5,501,400	$ 80,200	$ 242,000	$ 16,141,700	$ 14,636,900	$ 1,504,800

Contract types
A — Fixed-price.
B — Cost-plus-fee.

Appendix H

Sample Financial Statements

Completed Contractors, Inc.

Independent Auditor's Report

The Stockholders and Board of Directors
Completed Contractors, Inc.

We have audited the accompanying balance sheets of Completed Contractors, Inc., as of December 31, 19X8 and 19X7, and the related statements of income and retained earnings and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Completed Contractors, Inc., as of [at] December 31, 19X8 and 19X7, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

(Firm Signature)
Certified Public Accountants

City, State
February 18, 19X9

Completed Contractors, Inc.
Balance Sheets
December 31, 19X8 and 19X7

Assets	*19X8*	*19X7*
Current assets		
Cash	$ 242,700	$ 185,300
Contract receivables (less allowance for doubtful accounts of $10,000 and $8,000) (Note 2)	893,900	723,600
Costs in excess of billings on uncompleted contracts (Note 3)	418,700	437,100
Inventories, at lower of cost or realizable value on first-in, first-out basis (Note 4)	463,600	491,300
Prepaid expenses	89,900	53,900
Total current assets	2,108,800	1,891,200
Cash value of life insurance	35,800	32,900
Property and equipment, at cost		
Building	110,000	110,000
Equipment	178,000	163,000
Trucks and autos	220,000	200,000
	508,000	473,000
Less: Accumulated depreciation	218,000	203,200
	290,000	269,800
Land	21,500	21,500
	311,500	291,300
	$ 2,456,100	$ 2,215,400

Liabilities and Stockholders' Equity	*19X8*	*19X7*
Current liabilities		
Current maturities, long-term debt (Note 5)	$ 37,000	$ 30,600
Accounts payable	904,900	821,200
Accrued salaries and wages	138,300	155,100
Accrued income taxes	53,000	36,200
Accrued and other liabilities	116,400	55,550
Billings in excess of costs on uncompleted contracts (Note 3)	34,500	43,700
Total current liabilities	1,284,100	1,142,350
Long-term debt, less current maturities (Note 5)	245,000	241,000
	1,529,100	1,383,350
Stockholders' equity		
Common stock — $10 par value, 50,000 authorized shares, 23,500 issued and outstanding shares	235,000	235,000
Additional paid-in capital	65,000	65,000
Retained earnings	627,000	532,050
	927,000	832,050
	$ 2,456,100	$ 2,215,400

The accompanying notes are an integral part of these financial statements.

Completed Contractors, Inc.
Statements of Income and Retained Earnings
Years Ended December 31, 19X8 and 19X7

	19X8	*19X7*
Contract revenues	$9,487,000	$8,123,400
Costs and expenses		
Cost of contracts completed	8,458,500	7,392,300
General and administrative	684,300	588,900
Interest expense	26,500	23,000
	9,169,300	8,004,200
Income before income taxes	317,700	119,200
Income taxes	164,000	54,200
Net income ($6.54 and $2.77 per share)	153,700	65,000
Retained earnings		
Balance, beginning of year	532,050	525,800
	685,750	590,800
Dividends paid ($2.50 per share)	58,750	58,750
Balance, end of year	$ 627,000	$ 532,050

The accompanying notes are an integral part of these financial statements.

Completed Contractors, Inc.
Statements of Cash Flows

	Years Ended December 31,	
	19X8	*19X7*
Cash flows from operating activities:		
Net income	$153,700	$ 65,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	54,800	50,300
Provisions for losses on accounts receivable	2,000	1,000
Increase in contract receivables	(172,300)	(37,500)
Increase in billings in excess of costs	(9,200)	(16,300)
Increase (decrease) in costs in excess of billings on uncompleted contracts	18,400	(49,100)
(Decrease) increase in inventories	27,700	(3,400)
Increase (decrease) in prepaid expenses	(36,000)	16,500
Increase in cash value of life insurance	(2,900)	(2,685)
Increase in accounts payable	83,700	24,600
Decrease (increase) in accrued salaries and wages	(16,800)	24,300
Decrease (increase) in income taxes	16,800	(6,300)
Decrease (increase) in accrued and other liabilities	60,850	(33,100)
Net cash provided by operating activities	180,750	33,315
Cash flows from investing activities:		
Purchase of property and equipment	(75,000)	(53,500)
Net cash provided by investing activities	(75,000)	(53,500)
Cash flows from financing activities:		
Proceeds from issuance of long-term debt	44,000	68,000
Principal payments on long-term debt	(33,600)	(15,500)
Cash dividends paid	(58,750)	(58,750)
Net cash used in financing activities	(48,350)	(6,250)
Net increase (decrease) in cash	57,400	(26,435)
Cash at beginning of year	185,300	211,735
Cash at end of year	$242,700	$185,300

Supplementary data:

Cash equivalents include certificates of deposit with original maturities of one to three months—

Interest paid—19X8, $28,000; 19X7, $25,000

Income taxes paid—19X8, $147,200; 19X7, $52,000

The accompanying notes are an integral part of the financial statements.

Completed Contractors, Inc.
Notes to Financial Statements
December 31, 19X8 and 19X7

1. Significant Accounting Policies

Company's activities. The company is a heating and air-conditioning contractor for residential and commercial properties. Work on new structures is performed primarily under fixed-price contracts. Work on existing structures is performed under fixed-price or time-and-material contracts.

Revenue and cost recognition. Revenues from fixed-price construction contracts are recognized on the completed-contract method. This method is used because the typical contract is completed in two months or less and financial position and results of operations do not vary significantly from those which would result from use of the percentage-of-completion method. A contract is considered complete when all costs except insignificant items have been incurred and the installation is operating according to specifications or has been accepted by the customer.

Revenues from time-and-material contracts are recognized currently as the work is performed.

Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs, and depreciation costs. General and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Claims are included in revenues when received.

Costs in excess of amounts billed are classified as current assets under costs in excess of billings on uncompleted contracts. Billings in excess of costs are classified under current liabilities as billings in excess of costs on uncompleted contracts. Contract retentions are included in accounts receivable.

Inventories. Inventories are stated at cost on the first-in, first-out basis using unit cost for furnace and air-conditioning components and average cost for parts and supplies. The carrying value of furnace and air-conditioning component units is reduced to realizable value when such values are less than cost.

Property and equipment. Depreciation is provided over the estimated lives of the assets principally on the declining-balance method, except on the building where the straight-line method is used.

Pension plan. The company has a pension plan covering all employees not covered by union-sponsored plans. Pension costs charged to income include current-year costs and the amortization of prior-service costs over 30 years. The company's policy is to fund the costs accrued.

Investment tax credit. Investment tax credits are applied as a reduction to the current provision for federal income taxes using the flow-through method.

2. Contract Receivables

	December 31, 19X8	*December 31, 19X7*
Completed contracts, including retentions	$ 438,300	$ 408,600
Contracts in progress		
Current accounts	386,900	276,400
Retentions	78,700	46,600
	903,900	731,600
Less: Allowance for doubtful accounts	10,000	8,000
	$ 893,900	$ 723,600

Retentions include $ 10,300 in 19X8, which are expected to be collected after 12 months.

3. Costs and Billings on Uncompleted Contracts

	December 31, 19X8	*December 31, 19X7*
Costs incurred on uncompleted contracts	$2,140,400	$1,966,900
Billings on uncompleted contracts	1,756,200	1,573,500
	$ 384,200	$ 393,400
Included in accompanying balance sheets under the following captions:		
Costs in excess of billings on uncompleted contracts	$ 418,700	$ 437,100
Billings in excess of costs on uncompleted contracts	(34,500)	(43,700)
	$ 384,200	$ 393,400

4. Inventories

	December 31, 19X8	*December 31, 19X7*
Furnace and air-conditioning components	$303,200	$308,700
Parts and supplies	160,400	182,600
	$463,600	$491,300

Furnace and air-conditioning components include used items of $78,400 in 19X8 and $71,900 in 19X7 that are carried at the lower of cost or realizable value.

5. Long-Term Debt

	December 31, 19X8	*December 31, 19X7*
Notes payable, bank		
Notes due in quarterly installments of $2,500, plus interest at 8%	$140,000	$150,000
Notes due in monthly installments of $1,500, plus interest at prime plus 1½%	87,000	58,000
Mortgage payable		
Due in quarterly payments of $3,500, including interest at 9%	55,000	63,600
	282,000	271,600
Less: Current maturities	37,000	30,600
	$245,000	$241,000

6. Pension Plans

[Deleted-See FASB Statement No. 87, *Employers' Accounting for Pensions*, for current disclosure requirements.]

7. Backlog

The estimated gross revenue on work to be performed on signed contracts was $4,691,000 at December 31, 19X8, and $3,617,400 at December 31, 19X7. In addition to the backlog of work to be performed, there was gross revenue, to be reported in future periods under the completed-contract method used by the company, of $2,460,000 at December 31, 19X8, and $2,170,000 at December 31, 19X7.*

* The presentation of backlog information, although encouraged, is not a required disclosure.

Appendix I

Schedule of Changes Made to Construction Contractors

Reference	Change	Date
General	The term "examination" has changed to "audit" to conform to the terminology used in SAS No. 58.	October, 1990
Paragraph 3.17	Reference to FASB Statement No. 12 changed to FASB Statement No. 115.	May, 1994
Paragraph 3.23	Deleted material not relevant because APB Opinion No. 19 has been superseded by FASB Statement No. 95.	October, 1990
Paragraph 4.01	Reference to and quotes from SAS No. 6 changed to reference to and quotes from SAS No. 45 and FASB Statement No. 57.	October, 1990
Paragraph 4.03	Reference to FASB Statement No. 94 added.	October, 1990
Paragraph 4.03	Conformed to the terminology used in FASB Statement No. 95.	May, 1992
Paragraph 4.06	Reference to and quote from SAS No. 6 changed to reference to and quote from FASB Statement No. 57.	October, 1990
Paragraph 4.06	Reference to FASB Statement No. 96 changed to FASB Statement No. 109.	May, 1992
Chapter 5, title and paragraph 5.04	Notation of issuance of FASB Statement No. 109 added.	May, 1992
Paragraph 6.07	Amendment by FASB Statement No. 78 added to quote from ARB No. 43, Chapter 3, paragraph 7.	October, 1990
Paragraph 6.15	Notation of issuance of FASB Statement No. 109 added.	May, 1992
Paragraph 7.04	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 7.05	Second and third standards of fieldwork conformed to current *Codification of Statements on Auditing Standards.*	October, 1990
Chapters 8 and 9	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 9.02	Added to reflect issuance of SSAE No. 2; Subsequent paragraphs renumbered	May, 1995
Renumbered paragraph 9.07	Reference to SAS No. 9 changed to SAS No. 65.	May, 1992
Renumbered paragraphs 9.13 and 9.14	Added to conform chapter to SAS No. 55 terminology.	May, 1992

Reference	Change	Date
Paragraphs 10.02, 10.03, and 10.04	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 10.04	Reference to SAS No. 45 added.	May, 1992
Paragraph 10.05	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 10.06	References to SAS No. 67 added.	May, 1992
Paragraph 10.32	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 10.33	Reference to SAS No. 57 added.	May, 1992
Paragraph 10.34	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 10.37	Reference to SAS No. 11 changed to SAS No. 73; Note reference to the supersession of SAS No. 11 deleted.	May, 1995
Paragraph 10.39	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 11.02	Reference to SAS No. 6 changed to FASB Statement No. 57.	October, 1990
Paragraph 11.09	Reference to SAS No. 6 changed to SAS No. 45.	October, 1990
Paragraph 11.09	Conformed to the terminology used in FASB Statement No. 95.	May, 1992
Paragraph 11.13	Third bullet conformed to terminology in SAS Nos. 58 and 59.	October, 1990
Paragraph 11.14	Reference to SAS No. 54 added.	May, 1992
Paragraph 11.15	References and illustrative report conformed to SAS No. 62.	October, 1990
Appendix A:		
Notice to Readers	Revised to reflect SAS No. 69.	May, 1992
Paragraph 3	Note reference to supersession of APB Statement No. 4 added.	May, 1993
Paragraph 4	Reference to Industry Audit Guide, *Audits of Government Contractors*, deleted.	October, 1990
Paragraph 14	Footnote deleted.	October, 1990
Paragraphs 18 and 19	References to Industry Audit Guide, *Audits of Government Contractors*, has been changed to Audit and Accounting Guide, *Audits of Federal Government Contractors*.	October, 1990
Paragraph 38	Footnote deleted.	October, 1990
Paragraph 72	References in footnotes 11 and 13 to Industry Audit Guide, *Audits of Government Contractors*, has been changed to Audit and Accounting Guide, *Audits of Federal Government Contractors*.	October, 1990

Reference	Change	Date
Paragraph 75	Footnote deleted.	October, 1990
Appendix A of SOP	References in footnotes 1 and 2 to Industry Audit Guide, *Audits of Government Contractors*, has been changed to Audit and Accounting Guide, *Audits of Federal Government Contractors*.	October, 1990
Appendix F	Illustrative auditor's report conformed to SAS No. 58.	October, 1990
Appendix F	Footnote reference to FASB Statement No. 47 added at Note 9.	May, 1992
Appendix F	Note 11 deleted; reference to FASB Statement No. 87 added.	May, 1992
Appendix F	Note 13—Notation of issuance of FASB Statement No. 109 added.	May, 1993
Appendix F	Statement of cash flows added.	November, 1993
Appendices G and H	Illustrative auditor's report conformed to SAS No. 58.	October, 1990
Appendix H	Note 6 deleted; reference to FASB Statement No. 87 added.	May, 1992
Appendix H	Statement of cash flows added.	November, 1993

In addition to the above, notes have been added to highlight areas that will be updated in future editions. These areas include:

Chapter 5, *Differences Between Financial Accounting and Income Tax Accounting*, may be revised to conform to the provisions of FASB Statement No. 109.

Glossary

This glossary includes terms that have specialized meanings when used in this guide and in the construction industry.

back charges. Billings for work performed or costs incurred by one party that, in accordance with the agreement, should have been performed or incurred by the party to whom billed. Owners bill back charges to general contractors, and general contractors bill back charges to subcontractors. Examples of back charges include charges for cleanup work and charges for a subcontractor's use of a general contractor's equipment.

backlog. The amount of revenue that a contractor expects to be realized from work to be performed on uncompleted contracts, including new contractual agreements on which work has not begun.

bid. A formal offer by a contractor, in accordance with specifications for a project, to do all or a phase of the work at a certain price in accordance with the terms and conditions stated in the offer.

bid bond. A bond issued by a surety on behalf of a contractor that provides assurance to the recipient of the contractor's bid that, if the bid is accepted, the contractor will execute a contract and provide a *performance bond*. Under the bond, the surety is obligated to pay the recipient of the bid the difference between the contractor's bid and the bid of the next lowest responsible bidder if the bid is accepted and the contractor fails to execute a contract or to provide a performance bond. (See chapter 1, "Bonding and the Surety Underwriting Process.")

bid security. Funds or a *bid bond* submitted with a bid as a guarantee to the recipient of the bid that the contractor, if awarded the contract, will execute the contract in accordance with the bidding requirements and the contract documents.

bid shopping. A practice by which contractors, both before and after their bids are submitted, attempt to obtain prices from potential subcontractors and material suppliers that are lower than the contractors' original estimates on which their bids are based or, after a contract is awarded, seek to induce subcontractors to reduce the subcontract price included in the bid.

bidding requirements. The procedures and conditions for the submission of bids. The requirements are included in documents such as the notice to bidders, advertisement for bids, instructions to bidders, invitations to bid, and sample bid forms.

bonding capacity. The total dollar value of construction bonds that a surety will underwrite for a contractor, based on the surety's predetermination of the overall volume of work that the contractor can handle.

bonding company. A company authorized to issue *bid bonds, performance bonds, labor and materials bonds*, or other types of surety bonds.

bonus clause. A provision in a construction contract that provides for payments to the contractor in excess of the basic contract price as a reward for meeting or exceeding various contract stipulations, such as the contract completion date or the capacity, quality, or cost of the project.

broker. A party that obtains and accepts responsibility as a *general contractor* for the overall performance of a contract but enters into *subcontracts* with others for the performance of virtually all construction work required under the contract.

builders' risk insurance. Insurance coverage on a construction project during construction, including extended coverage that may be added for the contractor's protection or required by the contract for the customer's protection.

building codes. The regulations of governmental bodies specifying the construction standards that buildings in a jurisdiction must meet.

building permit. An official document issued by a governing body for the construction of a specified project in accordance with drawings and specifications approved by the governing body.

change orders. Modifications of an original contract that effectively change the provisions of the contract without adding new provisions. They include changes in specifications or design, method or manner of performance, facilities, equipment, materials, site, and period for completion of work. (See paragraph 61 of the SOP.)

claims. Amounts in excess of the agreed contract price that a contractor seeks to collect from customers or others for customer-caused delays, errors in specifications and designs, unapproved change orders, or other causes of unanticipated costs. (See paragraph 64 of the SOP.)

completed and accepted. A procedure relating to the time for closing jobs for tax purposes under the completed-contract method of accounting that allows closing a job when construction is physically completed and the customer has formally accepted the project as defined in the contract.

completion bond. A document providing assurance to the customer and the financial institution that the contractor will complete the work under the contract and that funds will be provided for the completion.

construction loan. Interim financing for the development and construction of real property.

construction management contractor. A party who enters into an agency contract with the owner of a construction project to supervise and coordinate the construction activity on the project, including negotiating contracts with others for all the construction work. (See chapter 1, "Nature and Significance of the Industry.")

contract bond. An approved form of security executed by a contractor and a surety for the execution of the contract and all supplemental agreements, including the payment of all debts relating to the construction of the project.

contract cost breakdown. An itemized schedule prepared by a contractor after the receipt of a contract showing in detail the elements and phases of the project and the cost of each element and phase.

contract item (pay item). An element of work, specifically described in a contract, for which the contract provides either a unit or lump-sum price.

contract overrun (underrun). The amount by which the original contract price, as adjusted by *change orders*, differs from the total cost of a project at completion.

contract payment bond. The security furnished by the contractor to guarantee payment for labor and materials obtained in the performance of the contract. (See *payment (labor and materials) bond.*)

contract performance bond. The security furnished by the contractor to guarantee the completion of the work on a project in accordance with the terms of the contract. (See *performance bond.*)

Critical Path Method (C.P.M.). A network scheduling method that shows the sequences and interdependencies of activities. The critical path is the sequence of activities that shows the shortest time path for completion of the project.

draw. The amount of *progress billings* on a contract that is currently available to a contractor under a contract with a fixed payment schedule.

escalation clause. A contract provision that provides for adjustments of the price of specific items as conditions change (for example, a provision that requires wage rates to be determined on the basis of wage levels established in agreements with labor unions).

estimate (bid function). The amount of labor, materials, and other costs that a contractor anticipates for a project, as summarized in the contractor's bid proposal for the project.

estimated cost to complete. The anticipated additional cost of materials, labor, and other items required to complete a project at a scheduled time.

extras (customer's extras). Additional work, not included in the original plan, requested of a contractor that will be billed separately and will not alter the original contract amount. (See chapter 1, "Contract Changes.")

final acceptance. The customer's acceptance of the project from the contractor on certification by an architect or engineer that the project is completed in accordance with contract requirements. The customer confirms final acceptance by making final payment under the contract unless the time for making the final payment is otherwise stipulated.

final inspection. The final review of the project by an architect or engineer before issuance of the final certificate for payment.

front-end loading. A procedure under which *progress billings* are accelerated in relation to costs incurred by assigning higher values to contract portions that will be completed in the early stages of a contract than to those portions that will be completed in the later stages so that cash receipts from the project during the early stages will be higher than they otherwise would be.

general contractor. A contractor who enters into a contract with the owner of a project for the construction of the project and who takes full responsibility for its completion, although the contractor may enter into *subcontracts* with others for the performance of specific parts or phases of the project. (See chapter 1, "Nature and Significance of the Industry.")

incentives. (See *bonus clause* and *penalty clause.*)

joint venture. An entity owned, operated, and jointly controlled by a small group of participants as a separate and specific business or project for the mutual benefit of the participants, including arrangements for pooling equipment, bonding, financing, and sharing skills (such as engineering, design, and construction). (See chapter 1, "Joint Ventures.")

letter agreement (letter of agreement). A letter stating the terms of an agreement between addressor and addressee, usually prepared for signature by the addressee as indication of acceptance of those terms as legally binding.

letter of intent. A letter signifying an intention to enter into a formal agreement and usually setting forth the general terms of such an agreement.

lien. An encumbrance that usually makes real or personal property the security for payment of a debt or discharge of an obligation.

liquidated damages. Construction contract clauses obligating the contractor to pay specified daily amounts to the project owner as compensation for damages suffered by the owner because of the contractor's failure to complete the work within a stated time.

loss contract. A contract on which the estimated cost to complete exceeds the contract price.

maintenance bond. A document, given by the contractor to the owner, guaranteeing to rectify defects in workmanship or materials for a specified time following completion of the project. A one-year bond is normally included in the performance bond.

mechanics lien. A lien on real property, created by statute in many areas, in favor of persons supplying labor or materials for a building or structure, for the value of labor or materials supplied by them. In some jurisdictions, a mechanics lien also exists for the value of professional services. Clear title to the property cannot be obtained until the claim for the labor, materials, or professional services is settled. Timely filing is essential to support the encumbrance, and prescribed filing dates vary by jurisdiction.

negotiated contract. A contract for construction developed through negotiation of plans, specifications, terms, and conditions without competitive bidding.

payment (labor and materials) bond. A bond executed by a contractor to protect suppliers of labor, materials, and supplies to a construction project.

penalty clause. A provision in a construction contract that provides for a reduction in the amount otherwise payable under a contract to a contractor as a penalty for failure to meet targets or schedules specified in the contract or for failure of the project to meet contract specifications.

performance bond. A bond issued by a surety and executed by a contractor to provide protection against the contractor's failure to perform a contract in accordance with its terms. (See chapter 1, "Bonding and the Surety Underwriting Process.")

prequalification. The written approval of an agency seeking bids on a project that authorizes a contractor to submit a bid on the project in circumstances in which bidders are required to meet certain standards.

prime contract. A contract between an owner of a project and a contractor for the completion of all or a portion of a project under which the contractor takes full responsibility for the completion of the work.

prime contractor. A contractor who enters into a contract with the owner of the project for the completion of all or a portion of the project and who takes full responsibility for its completion. (See *general contractor*.)

progress (advance) billings. Amounts billed, in accordance with the provisions of a contract, on the basis of progress to date under the contract.

punch list. A list made near the completion of work indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract.

quantity takeoffs. An itemized list of the quantities of materials and labor required for a project, with each item priced and extended, which is used in preparing a bid on the project.

retentions. Amounts withheld from progress billings until final and satisfactory project completion.

specifications (specs). A written description of the materials and workmanship required on a project (as shown by related working drawings), including standard and special provisions related to the quantities and qualities of materials to be furnished under the contract.

stop order. A formal notification to a contractor to discontinue some or all work on a project for reasons such as safety violations, defective materials or workmanship, or cancellation of the contract.

subcontract. A contract between the *prime contractor* and another contractor or supplier to perform specified work or to supply specified materials in accordance with plans and specifications for the project.

subcontractor bond. A bond executed by a subcontractor and given to the *prime contractor* to assure the subcontractor's performance on the *subcontract*, including the payment for all labor and materials required for the *subcontract*.

substantial completion. The point at which the major work on a contract is completed and only insignificant costs and potential risks remain. Revenue from a contract is recognized under the completed-contract method when the contract is substantially completed. (See paragraph 51 of the SOP.)

surety. (See *bonding company*.)

turnkey project. A project for which a contractor undertakes under contract to deliver a fully operational and tested facility before being entitled to payment.

unbalanced bid. A bid proposal under which the contract price is allocated to phases or items in the contract on a basis other than that of cost plus overhead and profit for each bid item or phase. A common practice is to *front-end load* a bid proposal to obtain working capital to finance the project. Another form of unbalanced bid on unit-price contracts assigns higher profits to types of work for which the quantities are most likely to be increased during the performance of the contract.

waiver of lien. An instrument by which the holder of a *mechanics or materials* lien against property formally relinquishes that right.

warranty (maintenance) period. A specified period, which is normally specified in the contract, after the completion and acceptance of a project, during which a contractor is required to provide maintenance construction, and for which the contractor is required to post a *maintenance bond*.

Index

INDEX

References are to section numbers.

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