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# CPA's guide to accounting, auditing, and tax for construction contractors

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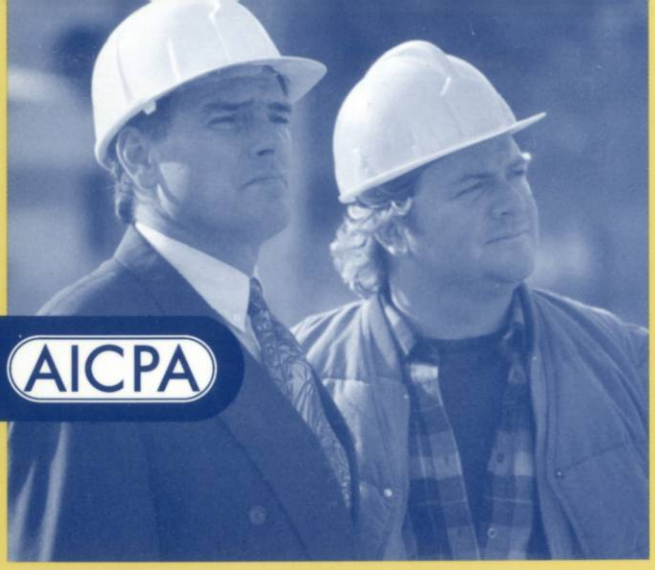

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Michael J. Ramos, CPA

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# FOREWORD

If you're a CPA who works for a construction contractor, you need to be knowledgeable about all accounting matters that affect contractors. Similarly, if you're in public practice and have construction contractor clients, you probably provide both financial accounting and tax services. This book recognizes those realities. It covers the complete range of accounting for construction contractors, from the details of GAAP accounting methods, to auditing and review services performed by outside CPAs, to the tax rules for contractors.

You'll find this book helpful whether you are new to working with construction contractors or more experienced, but not sure of all the details. Its comprehensive coverage will "fill in the blanks" that can occur when you learn about an industry on the job.

The author, Michael J. Ramos, CPA, has written extensively about construction contractors. Mr. Ramos was formerly an audit senior manager with KPMG Peat Marwick. He is a Denver-based consultant, specializing in auditing and accounting and is the author of many publications, including *Make Audits Pay: Leveraging the Audit Into Consulting Services*, *Preparing and Reporting on Cash- and Tax-Basis Financial Statements*, and others.

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# OVERVIEW

## INTRODUCTION

Construction contracting is a unique and complex industry, and the work of CPAs in providing accounting, auditing and tax services to construction contractors is a unique and complex niche in the accounting profession. The purpose of this book is to give you the specialized and detailed information you need, whether you are a practicing CPA with construction contractors as clients or on the staff of a construction contractor.

## ORGANIZATION

This book is divided into three main sections. The first section explains how construction contracting is different from other industries. It introduces you to the particular characteristics of the industry with an emphasis on those that have accounting, audit, or tax consequences. Accounting for long-term construction contracts is covered in this section. The section closes with a chapter on the contractor-surety relationship and how sureties use a contractor's financial statements.

The second section of the book focuses on audit issues and approaches that are unique to construction contractors. Included here are detailed analytical review procedures for contractors, coverage of internal controls, and the typical substantive procedures performed in an audit. In this section you will also find a description of how the guidance in the auditing chapters can be adapted to perform a review in accordance with Statements on Standards for Accounting and Review Services (SSARS).

The third section walks you through the tax rules for construction contractors. It begins with a survey of the tax rules and how they differ from GAAP. The final two chapters deal with the taxation of "small" contractors and "large" contractors.

Surveys show that more than 90% of all construction bonds are in amounts of $1 million or less. In other words, most jobs are for less than $1 million, and most contractors are not very large. So this book emphasizes issues that affect the small- to medium-size contractor. Wherever possible, it offers practical guidance and tips based on the experience of the author and those who helped by providing additional insights.

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**Note:** We use the terms *he* and *she* alternately throughout the book (except when a particular person is mentioned) since both sexes are well represented throughout the profession.

# CHAPTER 1

# NATURE OF THE CONSTRUCTION INDUSTRY

## INTRODUCTION

The construction industry offers many opportunities for the small practitioner. There are several reasons for this:

- The construction industry employs more people and contributes more to the GNP than any other industry in this country. It is one of the largest segments of the national economy, and therefore a large market for CPAs.

- Historically, because of the ease of entry into the industry, many construction contractors have been small, family-owned businesses. These kinds of businesses are well-suited to the services provided by smaller CPA firms.

- Most contractors are required to post a bid or performance bond in order to obtain the contract. These bonds are issued by sureties who require audited or, at a minimum, reviewed financial statements. In some situations, the surety will also require interim statements.

- The taxation of construction contractors can be complex and typically requires the expertise of a CPA.

If you've ever been involved with a home renovation project, or followed the progress of a public construction project in the newspaper (for example, a highway or an airport), then you know something about the construction business.

Have you ever remodeled your bathroom or built an addition to your house? Heard your neighbor tell the story of their remodeling project? If so, then you know how difficult it can be to coordinate the work of all the trades. You know something about budget overruns and change orders. You know how unforeseen events are a significant risk for any construction project, even those that are well-planned.

This chapter won't make you an expert on the construction industry. The main objective of this chapter is to point out those characteristics of a construction business that make it different from other businesses. The focus is on those areas that have the greatest impact on the services you provide to your contractor clients.

## TYPES OF CONTRACTORS

Construction contractors can be classified based on their size, the type of construction activity they undertake, and the nature and scope of their responsibility for the construction project.

Different types of contractors have different risks and service needs. As a first step toward servicing your construction clients, you should understand how they fit into the summary in Exhibit 1-1, which follows.

**Exhibit 1-1**
**Types of Contractors**

| Contractor Type | Nature and Scope of Work |
|---|---|
| Design-build | Also known as a "turnkey" contractor, they specialize in heavy construction such as power plants, refineries, and hydroelectric facilities. A design-build project requires extensive management skill, including the ability to manage projects over a wide geographical area. A design-build contractor manages all phases of the project, from the feasibility study through the final construction. |
| Heavy construction | May build roads, bridges, dams, airports or large buildings. Typically, the work is performed for public agencies or large corporations that do their own designing and engineering. |
| General contractors | Prime contractor who enters into a contract with the owner and who takes full responsibility for its completion. May engage subcontractors to perform specific parts or phases of projects. Specialties may include housing, schools, hospitals, office buildings, manufacturing plants, or warehouses. |
| Subcontractors | A second-level contractor who enters into a contract with the general contractor to perform a specific part or phase of a project. Specialties may include electrical, plumbing, concrete, mechanical (including heating and air conditioning) carpentry, drywall and flooring. |
| Construction Manager | Enters into an *agency* contract with the owner to supervise and coordinate the construction activity on the project, including negotiating contracts with others for the work. The distinction between a construction contractor and a construction manager is important for tax purposes. |

## THE CONSTRUCTION PROCESS

Suppose you get a phone call from a local businesswoman. Her company needs financing, and her banker told her that she needed an audit of her financial statements. He recommended you.

The businesswoman has never hired a CPA to audit her financial statements before, and she's curious about the audit process.

Without getting into too many technical details about audit risk and assertions, how would you describe an audit, from the initial bid to the completion of the work? You might describe the audit process as follows:

- Estimating the cost of the job and preparing a bid;
- Signing an engagement letter;
- Sending the staff out to do the work; and
- Managing and performing the work.
- A construction project follows a similar process.

### PREPARING COST ESTIMATES AND BIDS

The first thing a CPA will do is review the potential client's financial statements, operations, books and records, and then estimate what it will cost to perform the audit. Next, a bid is submitted to the client, usually in an engagement letter.

The contractor's client is referred to as the owner. When an owner wants to construct a new facility, it is usual to hire an architect or engineer to prepare plans for the project. The contractor reviews these plans and estimates what it will take to complete the project. Preparing a cost estimate for a construction project is similar to estimating the cost of an audit and involves estimates of:

- The quantities and price of materials.
- The hours of various labor classifications.
- The types and hours of any required equipment.
- Whether subcontractors will be used to perform any phases of the job.

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 contractors to use as a check on their own estimating department.

Like an audit, some construction projects are put out to bid. Other projects are not; the price is negotiated between the owner and the contractor. Whether a contractor performs bid or negotiated work has an impact on that contractor's operations.

**Value-Added Services**

Some types of construction projects require specialized, expensive equipment. Contractors are often faced with lease or buy decisions that may impact cash flow, profitability and income tax expense. The contractor's CPA should be alert for these situations and help the contractor choose the best option.

Once a CPA firm has determined how many hours it will take to perform an audit, then the firm prepares a bid. In preparing the bid, the CPA firm will consider the standard billing rates for the staff and partners, but other factors may come into play, for example, whether the work is to be done during the busy season or during the off-season.

Once the contractors have estimated the cost of the project, they are faced with a similar decision — how much to mark it up. Factors the contractors may evaluate when considering mark-up are presented in Exhibit 1-2, on the next page.

Don't overlook that, in most situations, the contractor should estimate the timing of the cash disbursements for the job and the cash available to meet them. The resulting cash flow requirements are vital to help the contractor allocate the contract price among the progress billing points called for in the contract.

**Why It Matters**

The main elements of a contractor's financial statements are based on estimates — estimates of cost and gross profit (that is, cost plus mark-up). The estimating process begins with preparing the bid, and the CPA needs to understand this process to fully understand the client's operations and service needs.

## ENTERING INTO THE CONTRACT

A CPA and an audit client sign an engagement letter; a contractor and an owner sign a contract. A given situation can be covered by different types of contracts, and the risks and concerns may be different for each contract type. Contract types and their associated risks are discussed on page 10.

**Exhibit 1-2**

**Factors a Contractor Evaluates When Determining Mark-Up**

In determining how much the bid will be marked up over cost, the contractor ordinarily evaluates several factors including, but not limited to:

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.

## STARTING THE JOB

To start an audit, the CPA has to mobilize the staff, get them to the job site along with their supplies and the necessary equipment, such as computers. A contractor is faced with a similar task.

Before construction begins, the contractor usually moves equipment to the job site, erects a temporary field office and installs temporary utilities. (Note that, like an audit, a contractor's work is done at a remote location, away from the company's headquarters.) Like an audit firm, a contractor has a decentralized operation, which impacts the internal control structure. This point will be discussed further in Chapter 6.

### PROJECT MANAGEMENT

With both an audit and a construction project, the quality of on-site, day-to-day management is a key in determining the success or failure of a given job. A CPA has an audit senior to perform this function; a contractor has a project manager. The objectives of both are the same:

- To get the job done, according to the requirements of the contract.
- To complete the job within budget.

Think of what you require of an audit senior; the requirements of a construction project manager are similar:

- Planning and scheduling the staff and the performance of the work.
- Ensuring the work meets technical standards.
- Day-to-day administration and interaction with the client.
- Tracking job costs and estimating when the job will be completed.
- Communicating job progress and other information from the job site.

## CHARACTERISTICS UNIQUE TO CONTRACTORS

This section presents information on the characteristics of a construction contractor's business that make it different from other clients. Those characteristics and their implications for the CPA are summarized in Exhibit 1-3, on page 9.

### UNIQUE PROJECTS

Every construction project is unique. This makes a contractor different from a manufacturer who produces the same widget every time. A contractor is more project-oriented and less process-oriented.

This project orientation affects the accounting and auditing of a contractor. Contractor accounting (i.e., percentage-of-completion, completed-contract) is essentially the accounting for individual projects. The audit of a contractor is an audit of individual projects. These two points will be the focus of subsequent chapters.

Also, the unique nature of construction projects means that every project may contain significant unknowns. This increases the risk assumed by contractors.

## PRICING

A contractor prices the work before it is completed and before all the costs are known. This represents a significant risk to the contractor. It also places a premium on estimating skills.

**Exhibit 1-3**

**Characteristics Unique to Contractors**

| What Makes a Contractor Unique? | What It Means to the CPA? |
|---|---|
| Contract projects are one-of-a-kind — the contractor doesn't do the same job twice. | • The contractor's business is more project-oriented and less process-oriented.<br>• Unique projects increase audit risk. |
| Contractor usually sets a price for the work before the work is done. | • A contractor must have good estimating skills.<br>• Extensive use of estimates creates accounting, auditing and tax issues. |
| Construction work is performed under contract. | • The risk assumed by the contractor varies according to the type of contract entered into.<br>• The requirements of the internal control structure may vary according to the type of contract.<br>• The accounting and auditing of a contractor is essentially the accounting and auditing of individual contracts. |
| Construction projects may take a long time to complete. | • When the start and completion of a contract stretches over more than one accounting period, revenue and taxable income are based on estimates.<br>• Generally, the longer the project, the greater the risk. |

*(continued)*

**Exhibit 1-3** *(continued)*

**Characteristics Unique to Contractors**

| What Makes a Contractor Unique? | What It Means to the CPA? |
|---|---|
| Change orders occur frequently. | • Change orders, claims, extras and back charges will affect the profitability of the job. They must be properly controlled and accounted for. |
| Most contractors need a surety company and bonding in order to operate. | • A surety company is an integral part of the contractor's business and is one of the primary users of the contractor's financial statements. |
| General contractors may use sub-contractors on a project. | • The subcontractor relationship must be managed and controlled. |
| As a means of generating working capital, contractors will typically "front-end" load contracts in order to accelerate cash receipts and finance the construction project. | • Cash flow is a key element to managing a construction project.<br>• Overbillings and underbillings are usually an important component of a contractor's balance sheet. |

## CONSTRUCTION CONTRACTS

All contractors typically enter into a contract with the customer that specifies the work to be performed and the basis for determining the amount and terms of payment, and that generally requires total performance before the contractor's obligation is discharged. Contracts may include target penalties and incentives that are a function of such things as completion dates, plant capacity on the completion of the project, and underruns or overruns of estimated costs.

There are four basic types of contracts:

- *Fixed-price or lump-sum contracts.* Provide for a single price for the total amount of work to be performed on a project. The price is usually not subject to any adjustment by reason of the cost experience of the contractor or the performance under the contract.

- *Unit-price contracts.* Provide that a contractor will perform a specific project at a fixed price per unit of output; for example, to excavate a site at $X per cubic yard. A unit-price contract is essentially a fixed-price contract with the only variable being units of work performed.

- *Cost-type or cost-plus contracts.* Provide for reimbursement of allowable or otherwise defined costs incurred plus a fee. Terms of the contract should include terms specifying reimbursable costs, overhead recovery percentages and fees, which may be fixed or based on a percentage of total costs.

- *Time-and-materials contracts.* Similar to a cost-plus contract, these contracts generally provide for payments to the contractor on the basis of direct labor hours at fixed hourly rates and cost of materials or other specified costs.

As a CPA, you understand that different types of contracts carry different levels and types of risk. If you agree to prepare a tax return for a fixed fee, you must absorb any cost overruns on the project; that is a risk you assume. On the other hand, if you provide CFO-type services to your clients on a rate-per-hour basis, you are not at risk if the job takes longer than anticipated. However, there may be other concerns you may not have under a fixed-fee arrangement.

Different types of construction contracts will also place different demands on the accounting system and internal control structure. For example, a cost-plus contract seeks reimbursement from the owner for specified costs. In that situation, the internal control structure should emphasize the documentation of costs and expenditures for the purpose of minimizing nonreimbursable expenses. Contracts performed under a fixed-price arrangement will also accumulate costs, but the emphasis there is on generating information that helps management quickly identify over-budget or other problem areas that need better supervision.

Exhibit 1-4 on the next page summarizes the risks and internal control structure considerations for each type of contract.

## CONSTRUCTION PROJECTS TAKE A LONG TIME

For a commercial business, the sale is made at a given point in time. For a contractor, the sale — in this case, performance under the terms of the contract — takes place over a period of time. In some cases, that period of time can be months or even years.

A major accounting issue for all contractors is determining the point or points at which revenue should be recognized as earned and costs should be recognized as expenses. Accounting for 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 is true for both GAAP and tax purposes.

This measurement process involves considerable use of estimates in determining revenue, cost and profits and in assigning those amounts to the proper accounting period. Making the key estimates is complicated by the uncertainties inherent in the construction process.

The extensive use of estimates is also a key audit consideration, which will be discussed in Chapter 7.

## CHANGE ORDERS AND OTHER CONTRACT MODIFICATIONS

Contract changes are a way of life in the construction business. Read Example 1-1, page 13, as a sample of the ramifications of contract changes.

**Exhibit 1-4**

**Types of Contracts, Risk and Internal Control Consideration**

| Contract Type | Risks | Control Considerations |
|---|---|---|
| Fixed-Price | • Cost overruns.<br>• Poor or incomplete cost estimates.<br>• Job management failures.<br>• Unforeseen conditions. | • Emphasis on cost accumulation for each job.<br>• Reports should help management identify problem areas and estimate cost to complete.<br>• Management should receive and review job reports on a regular, timely basis. |
| Unit-Price | • Unforeseen conditions.<br>• Poor or incomplete cost estimates.<br>• Job management failures. | • Emphasis on unit costs.<br>• Reports should help management identify problem areas and estimate cost to complete.<br>• Management should receive and review job reports on a regular, timely basis. |
| Cost-Plus | • Time and cost overruns.<br>• Warranties.<br>• Disputes with the owner over definition or interpretation of reimbursable costs. | • Emphasis on documentation of costs and expenditures.<br>• Minimize nonreimbursable costs.<br>• Maintain accountability for materials, supplies, labor and equipment. |
| Time and Materials | • Job management failures.<br>• Unforeseen conditions. | • Emphasis on accumulation of time and material costs.<br>• Emphasis on timely billing to the owner. |

### EXAMPLE 1-1: MR. JONES CHANGES HIS MIND

Return to the analogy introduced at the beginning of this chapter that a construction project is similar to a home remodeling project. Mr. Jones* decided to lay sod in the backyard, a relatively small, easily managed process. He considered adding a sprinkler system but ultimately decided against it as a way to keep the cost down. If he wanted one, he could always add it later.

Jones roto-tilled the yard and discovered the dirt was much harder and clay-like than he imagined. He took a sample to the local nursery and they told him that the sod would stand a much better chance of taking if he added several inches of topsoil to the yard.

The backyard was surrounded by a fence, and outside the fence were some trees. To get the truck in to deliver the topsoil, Jones had to knock down a portion of the fence and take out some trees (he didn't like them anyway).

While spreading and mixing in the topsoil, he thought again about the sprinkler system. It would be foolish to dig up the yard some time in the future when it was already dug up now. What the heck, he figured. He took an advance on a line of credit and called a sprinkler company for an estimate.

Take the example of Mr. Jones, magnify it ten or twenty times, and that's what it's like on most construction projects. Circumstances require a modification to the original contract or the owner may change his or her mind and want something else. Modifications to an original contract are referred to as change orders.

Claims and back charges represent amounts in excess of the original contract price that a contractor is trying to collect from the owner. They may result from unapproved or disputed change orders, delays caused by the customer, errors in plan specifications and designs, and contract termination. Other claims may result from other unanticipated costs incurred by the contractor that are not part of the existing contract.

To maximize profitability on the job, management must properly control, document, and collect on any change orders, claims, extras or back charges. The accounting for these items is somewhat specialized and may involve considerable judgment. This is discussed further in Chapter 7.

## SURETY AND BONDING

A surety company is important to the contractor because it ensures the timely completion of the project in accordance with the terms of the contract. This guarantee is provided through the issuance of surety bonds.

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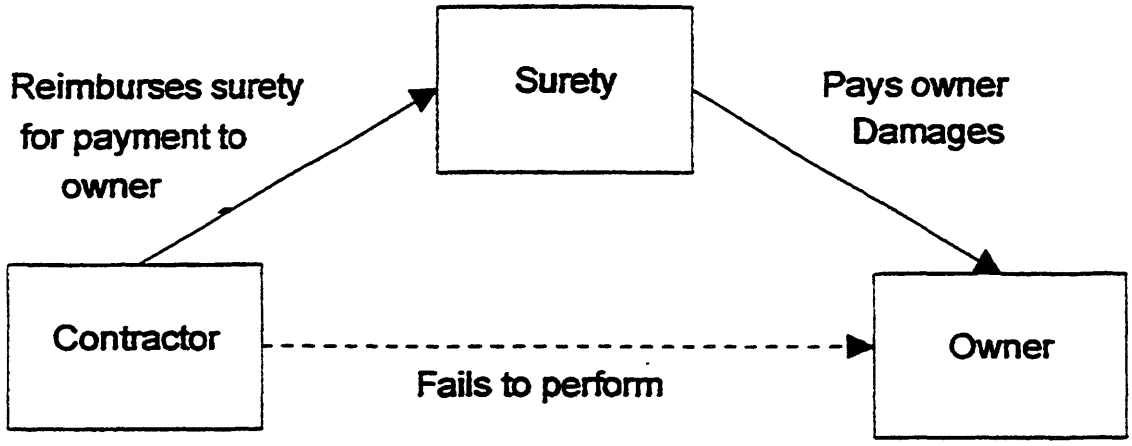
* Not his real name. Any relation between this event and the author's own life is strictly a coincidence.

A surety bond is a contract between three parties: the contractor, the surety company, and the project owner. Under a surety agreement, the surety guarantees to the owner that the contractor will perform according to the terms of the contract. Additionally, a contractor is obligated under a surety bond to reimburse the surety for any loss the surety incurs as a result of guaranteeing the contractor.

**Figure 1-1: The Contractor/Surety/Owner Relationship**




So the surety company issues a surety bond expecting that the contractor will reimburse any losses. In that sense, a surety bond functions more like a credit guarantee issued by a bank than as an insurance policy. Look at Figure 1-1 to see how the contractor, surety, and owner interact.

Any CPA who provides service to a construction contractor must have a working understanding of the surety process. If you prepare or audit the financial statements of a contractor, you should have a basic understanding of how those financial statements will be used by the surety. These issues are discussed in detail in Chapter 3.

## SUBCONTRACTORS

On a large contract, a general contractor will often hire a subcontractor to perform a specified task or phase of the project. This is an effective way to spread the risk, the financing, and the operational problems of the job. However, the prime contractor is still responsible to the owner for the work of the subcontractor and to pay the subcontractor's labor and material bills.

For this reason, it's important for the general contractor to exercise some control over the subcontractors, which includes not only supervision of the work, but also monitoring the subcontractors' financial condition. A subcontractor's work may be covered by a surety bond, and the general contractor needs to take necessary precautions to ensure that the subcontractor's surety is not released until the work is completely performed. The general contractor will normally withhold retainage of 10% to ensure completion and payment of costs incurred by subcontractor.

## MANAGING CASH FLOW

A contractor's greatest financing need is working capital.

The contractor puts money up front to pay for material, supplies and overhead. Usually, there is a time lag between when costs are incurred and progress payments are received from the customer. That is why working capital is so important to a contractor.

Traditional lines of credit are seldom extended to contractors, though a working capital line of credit on specific contracts may be available. A more common form of financing a construction project is accomplished through the contractor's billing practices. Billing practices in the construction industry vary widely and are often not correlated with the performance of the work. The billing arrangements are specified in the contract and may be based on:

- Completion of certain stages of the work;
- Costs incurred on cost-plus contracts;
- Architects' or engineers' estimates of completion;
- Specified time schedules; and
- Quantity measures of unit price contracts, such as cubic yards excavated.

"Front-end loading" is the practice of assigning a higher relative bid price to job components that will be completed early in the job. This is an effective way of financing the costs of construction.

Most contracts call for retention by the owner of a specified amount of the progress billing (typically 10%) as a way to ensure the proper performance of the work. A well-managed contractor will be able to not only offset the retainage but also recover the initial investments early in the job and continue it entirely on the funds received through progress payments. Many contractors, particularly general contractors, are able to withhold retainage from their subcontractors.

Unlike a commercial business, a contractor's billings do not match the revenue and cost recognition practices. Differences between the amount billed and the cost and profit recognized on a job are carried on the balance sheet. The accounting for over- and under-billings is discussed in Chapter 2.

Companies that substantially front-end load their jobs may find themselves in a position where the cash inflows at the end of the contract may be less than the cash requirements. This is known as "job borrow" and is illustrated in Example 1-2. Appropriate controls and cash budgeting are an essential part of a contractor's financial management.

### EXAMPLE 1-2: JOB BORROW

XYZ Contractors have a project where estimated costs are $100. The total contract for this project is $120. The estimated cash flows for this job are as follows:

| | Period | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | Total |
| Cash outflow: | | | | | | |
| Job costs | $ (15) | $ (20) | $ (20) | $ (20) | $ (25) | $ (100) |
| Cash inflow | | | | | | |
| Progress payments | 25 | 30 | 30 | 20 | 15 | 120 |
| Net cash flow | $ 10 | $ 10 | $ 10 | $ 0 | $ (10) | $ 20 |

In this situation, XYZ has front-end loaded this job, collecting more in the early stages of the contract than is spent. This helps provide working capital.

However, at the end of the job, in Period 5, XYZ spends more in job costs than received in progress payments. Therefore, the project must be carefully managed to be sure enough cash is on hand at the end of the job to finish it.

## UNDERSTANDING THE ENVIRONMENT IN WHICH THE CONTRACTOR OPERATES

In addition to gaining an understanding of the contractor's business, it's important for the CPA to understand the economic environment in which the contractor operates.

The Audit Risk Alert *Construction Contractors Industry Developments—1999/2000* published by the AICPA contains some information on current economic conditions. Typically, this information is rather general and deals with national trends. Industry publications such as the *Journal of Construction Accounting and Taxation* also publish statistics on the national construction industry. The Construction Financial Management Association publishes an annual financial survey that provides benchmarking and financial information about the construction industry. The *Architectural Record* publishes an outlook for the construction industry each year in its November issue. Look in your local library for a copy.

You should also try to obtain information about the economy and construction industry in the geographic area in which your clients operate. For information about the local economy, consult the local business publications, government agencies and Chambers of Commerce.

Additionally, the Society of Industrial and Office REALTORS (SIOR) (in conjunction with Landuer Real Estate Consultants) publishes an annual *Comparative Statistics of Industrial and Office Real Estate*

*Markets*. Besides providing a broad overview and forecast for the industrial and office real estate markets, the survey also covers local and international markets in some detail. The report can be obtained by contacting SIOR at (202) 737-1150, or by writing to the Society of Industrial and Office REALTORS at 700 11th Street, N.W., Suite 510, Washington, D.C. 20001, or at www.sior.com.

Each year another organization, the Urban Land Institute, publishes its market profiles of major urban centers in North America. Each profile covers single-family and multifamily housing, retail, office, and industrial development. The profiles describe the overall development environment and specific construction activity. This report can be obtained by contacting the Urban Land Institute at (800) 321-5011, or writing to them at 1025 Thomas Jefferson Street, N.W., Suite 500W, Washington, D.C. 20007, or at www.uli.org.

In gaining an understanding about economic and business conditions and how these affect your contractor clients, keep in mind the following:

- "Front-end" contractors such as excavators will be the first to be affected by changes in the economy. "Finish" contractors, such as electrical, drywall or carpentry, typically perform their work later in the contract cycle; and therefore, will be affected later by changes in the economy.

- All construction markets — retail, commercial, and industrial — are affected by supply and demand. Construction activity will be slow in areas where demand exceeds supply. The reverse is also true. Look for indicators such as the vacancy/occupancy rates for commercial buildings or apartments to gauge the general supply and demand for construction.

- Look for statistics on housing starts and applications for building permits to gauge the residential housing market. Keep track of trends in interest rates, too, since this market is particularly sensitive to changes in interest rates.

- Nonresidential construction is generally less interest-rate sensitive than housing construction and is more reliant on the overall level of corporate profits. It may also be influenced by the availability of capital. For example, during the 1980s, the U.S. Savings and Loan industry and foreign investors (most notably the Japanese) made huge sums of capital available for the construction of commercial real estate projects (for example, in southern California).

- Publicly financed projects are typically less sensitive to economic indicators than they are to local politics and the decisions of the voters. For example, a community may vote to construct more prisons and fewer schools, or vice versa.

## SUMMARY

In order to provide quality service to a construction contractor, a CPA must understand how the business operates. This chapter is the first of three that introduces you to the construction industry, and it focused on the construction process and characteristics unique to construction contractors. The emphasis was on those items that are relevant to the accounting, auditing, tax, and consulting issues to be covered later.

For more information on the construction industry, consider the following:

## Membership Organizations

**Construction Financial Management Association.** The CFMA is the only not-for-profit organization dedicated to serving financial professionals in the construction industry. It publishes a bi-monthly newsletter and annual industry statistics. Its address:

Construction Financial Management Association
29 Emmons Drive, Suite F-50
Princeton, New Jersey 08540
Tel (609) 452-8000
Fax (609) 452-0474
www.cfma.org

**Associated Builders and Contractors.** The ABC has more than 80 chapters across the U.S. with a membership of more than 15,000 companies. ABC conducts training seminars, and local chapters publish monthly newsletters. It can be reached at:

Associated Builders and Contractors, Inc.
1300 N. Seventeenth Street, Suite 800
Rosslyn, VA 22209
Tel (703) 812-2000
Fax (703) 812-8203
www.abc.org

Associated General Contractors
333 John Carlyle Street, Suite 200
Alexandria, VA 22314
Tel (703) 548-3118
Fax (703) 548-3119
www.agc.org

## Publications

*Journal of Construction Accounting & Taxation*, published by Warren Gorham Lamont, New York. This is a quarterly publication whose title says it all. Also includes the occasional article on legal or management issues. Periodically publishes industry statistics.

*Engineering News-Record*, published by McGraw-Hill, New York. Weekly magazine catering to the construction industry. Includes news, regular departments and features.

*CFMA Building Profits*, published by the CFMA, Princeton, New Jersey. Bimonthly news magazine of the CFMA.

# CHAPTER 2

# CONTRACT ACCOUNTING

## INTRODUCTION

This chapter discusses the accounting for long-term construction contracts — the one accounting area that is generally unique to construction contractors. The chapter's emphasis is on revenue and cost recognition and to a lesser degree on the balance sheet presentation.

## BACKGROUND

The authoritative literature on accounting for construction contracts is SOP 81-1. This Statement is included as an appendix to the AICPA Audit and Accounting Guide, *Construction Contractors*. ARB 45, *Long-Term Construction-Type Contracts,* also contains some relevant guidance, but in practice SOP 81-1 is referred to more often. The *Audit Risk Alert Construction Contractor Industry Developments—1999/2000* contains nonauthoritative accounting developments on recently issued accounting pronouncements.

The issues in accounting for construction contracts revolve around the fact that in the construction business the earning process often spans more than one accounting period. For example, the contractor starts a job in November and finishes it in February. The end of the accounting period is December 31. At that point, the earnings process is not yet complete, the final profit on the job is not yet known, and so how should revenues and costs be recognized and measured?

**Reading Between the Lines**

The issues related to contract accounting only apply to contracts in progress at the balance sheet date. Issues relating to percentage-of-completion, estimated costs to complete, etc., are all moot for contracts completed by year-end.

Remember, a long-term contract is simply one that is not completed in the year it is entered into. The 12-month duration test does not apply.

The recognition and measurement of revenues and costs for uncompleted projects involve considerable use of estimates, which complicates both the accounting and auditing of a construction contract.

The accounting for a contract involves the following three steps:

1. Determine the profit center; that is, define the contract.
2. Determine which accounting method (percentage-of-completion or completed-contract) to apply.
3. Apply the accounting method (usually percentage-of-completion).

## DETERMINING THE PROFIT CENTER

The profit center is the level at which the accumulation of revenues and costs occurs. Usually, the profit center is easily defined as a single contract. However, in some situations the profit center may be:

- A combination of several contracts; or
- A segment of an individual contract.

The basic presumption is that each contract is its own profit center. The combining or segmenting of contracts is allowed only if the contract or a series of contracts meets the criteria specified in SOP 81-1.

**Why It Matters**

The misapplication of the combining and segmenting criteria may distort the financial statements. For example, a contractor has two jobs, A and B. Project A is expected to earn a $10 profit; project B a $3 loss. If those contracts were inappropriately combined, the contractor would show one job, AB with a $7 profit. The $3 loss on B would be hidden. Furthermore, if Project B was to be performed first, revenue would be accelerated into an earlier period.

Another contractor has a job to grade, pave, and paint a parking lot. In bidding the job, the contractor built in all the profit in the grading phase, breaks even in paving, and incurs a slight loss in the painting. If this project was segmented, each phase would be accounted for separately. The loss on the painting phase would be deferred, conceivably until a subsequent accounting period.

### COMBINING

Occasionally, circumstances may indicate a need to combine similar contracts. In general, this happens when a group of contracts is so closely related that they are, in effect, parts of a single project with an overall profit margin. Accounting for the projects individually may not be feasible or appropriate.

Paragraph 37 of SOP 81-1 defines the criteria for combining contracts. All of the following conditions must be met:

- *Negotiated in the same economic environment.* The contracts must be negotiated as a package in the same economic environment with an overall profit margin objective. "The same economic environment" is related to the time period between the commitments of the parties to the individual contracts. The shorter the time period, the more likely it is that the economic environment affecting the negotiations is the same. The threshold: SOP 81-1 says the time period between commitments must be "reasonably short."

- *In essence, a single project.* The phases, elements, or units of output should be closely interrelated or interdependent in terms of their design, technology, and function, or their ultimate purpose or use.

- *Substantial common costs.* The construction activities of the contracts should have substantial common costs that cannot be separately identified with, or reasonably allocated to, the elements, phases, or units of output.

- *Concurrent performance.* The contracts must be 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.

- *Single customer.* The contracts must constitute, in substance, an agreement with a single customer.

In order to combine production-type contracts or segments of such contracts that do not meet the above criteria, the following criteria must be met:

- *Substantially identical units.* The contracts are with one or more customers for the production of substantially identical units of a basic item produced concurrently or sequentially.

- *Units-of-delivery basis of accounting.* Revenue on a contract is recognized on the units-of-delivery basis of applying the percentage-of-completion method.

**Example 2-1: Combining Contracts**

Acme Drywall bids to install the drywall on Paradise Park Condos, a complex consisting of two five-story buildings. The bid is for phase one of the project, the first of the two buildings.

Acme submits a bid at lower than normal profit margins. Their thinking is that if they obtain the phase one work, the chances are excellent of obtaining the phase two work. Once they have mobilized to the site and incurred many of the precontract costs, it becomes difficult for other contractors to compete on a competitive-bid basis since they will have to include these costs in their bid.

In this situation, Acme may meet the combining criteria outlined in SOP 81-1, and the lower profit margins on phase one can be combined with the higher profit margins on phase two.

## SEGMENTING

**Reading Between the Lines**

It is very rare that a contract will meet the criteria for segmenting.

A contractor may provide several different types of services, each of which carries a different profit margin. For example, a design-build contractor may perform engineering, procurement, construction, and construction management services, all at different levels of profit depending on the degree of risk, uniqueness of the service, or whether it has a monopoly in the marketplace. These services may be sold separately or combined under one contract with one owner.

Paragraph 40 of SOP 81-1 describes certain steps that must be followed and criteria that must be met in order to segment a contract. All of the following steps must be documented and verifiable in order to segment a contract:

- The contractor submitted bona fide proposals on the separate components of the project and on the entire project.
- The customer had the right to accept the proposals on either basis.
- The aggregate amount of the proposals on the separate components approximated the amount of the proposal on the entire project.

A project that does not meet the criteria above may be segmented only if it meets all the following criteria:

- The terms and scope of the contract or project clearly call for separable phases or elements.
- The separable phases or elements of the project are often bid or negotiated separately.
- 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.
- 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 contract is ascribed.
- 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.
- 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.
- 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.

**Example 2-2: Segmenting***

An electrical and mechanical subcontractor is awarded both the electrical and mechanical work based on separate independent bids, and separate subcontracts are signed.

Under this scenario, each contract will be its own profit center. If the work had been negotiated as a package, then the contract might have been segmented, but only if it met the criteria specified in SOP 81-1.

## DETERMINING THE PROPER ACCOUNTING METHOD

- SOP 81-1 discusses three different accounting methods:
- Percentage-of-completion.
- Zero-profit (a subset of the percentage-of-completion method).
- Completed-contract.

The determination of which method is appropriate depends on the circumstances. The three methods are *not* acceptable alternatives for the same circumstances.

### PERCENTAGE-OF-COMPLETION METHOD

The use of the percentage-of-completion method depends on the ability to make reasonably dependable estimates. In particular, the contractor must be able to estimate contract revenues, contract costs and the project's progress toward completion. The percentage-of-completion method should be used in all instances where reasonably dependable estimates can be made and all the following conditions exist:

- Contracts executed by the parties normally include provisions that clearly specify the enforceable right 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 its obligation under the contract.
- The contractor can be expected to perform its contractual obligations.

* Appendix B of the AICPA Audit and Accounting Guide *Construction Contractors* contains additional examples of applying the segmenting criteria. (Note that SOP 81-1 is included as Appendix A to the Guide. The SOP has its own appendixes, so when looking for an appendix in the Guide, be sure to distinguish between those that are an appendix to the SOP and those that belong to the Guide itself.)

There is a rebuttable presumption that a contractor will be able to make reasonably dependable estimates and meet the criteria for percentage-of-completion accounting. Persuasive evidence to the contrary is necessary to overcome the presumption.

## ZERO-PROFIT METHOD

The zero-profit method is a modification to the percentage-of-completion method. The zero-profit method is used when the contractor is unable to estimate the final outcome of the project except to assure that no loss will be incurred. Under this method, the contractor uses a zero estimate of profit, and equal amounts of revenues and expenses are recognized until results can be estimated more precisely.

Some contractors, in effect, apply the zero-profit method until the project reaches a certain stage of completion. That is, all profit is deferred until the project reaches a certain point, say 20%. Their argument is that until the job reaches that level of completion, it is difficult to predict results, except to say that the job will not be a loss.

The zero-profit method is significantly different from the completed-contract method discussed below. Under the completed-contract method, revenues and expenses are deferred until the contract is completed.

Under the zero-profit method, equal amounts of revenue and expenses are reported in the income statement. Thus, the user has an indication of the volume of the contractor's business.

The zero-profit method is normally used for one contract in a particular period. It is rarely appropriate to use zero-profit on all contracts. If conditions exist that require this method on all jobs, the contractor has serious problems and further disclosures may be required.

## COMPLETED-CONTRACT METHOD

The completed-contract method should be used when persuasive evidence overcomes the presumption that the contractor should use the percentage-of-completion (POC) method. In other words, the contractor cannot estimate costs as single amount, range, or loss.

The completed-contract method may also be used when it does not differ materially from the percentage-of-completion method. This may occur when a contractor performs primarily short-term contracts, for example, a small plumbing contractor whose projects are completed in such a short time span that the work is somewhat analogous to the manufacture of shelf production items for sale. In these 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 the percentage-of-completion method. If this reason is used, it indicates that POC can be calculated. Accordingly the user, such as the surety, will request the calculation schedules.

A contractor using the completed-contract method as its basic accounting policy should use the percentage-of-completion method for all contracts that meet the percentage-of-completion criteria. Such a departure should be disclosed and may require a qualified opinion.

**Reading Between the Lines**
**Choice of Accounting Method**

As a practical matter, it would be rare that a contractor would be able to rebut the percentage-of-completion assumption. Paragraphs 25 through 29 of SOP 81-1 go into some detail on the matter. For example, the Statement notes:

- A range of amounts may be considered a reasonably dependable estimate.
- Frequent revision of estimates does not indicate that the estimates are unreliable. Actual results may differ widely from original estimates, but those estimates may still be considered reasonably dependable.
- "Inherent hazards" may call into question the dependability of estimates. However, those inherent hazards would not be expected to recur frequently. They involve events and conditions not ordinarily considered in preparing estimates, such as a contract with unrealistic or ill-defined terms, or a contract between unreliable parties.

Contractors should be cautious before accounting for a contract under any method other than percentage-of-completion.

## THE PERCENTAGE-OF-COMPLETION METHOD

The percentage-of-completion method is based on the premise that revenue is earned and should be recognized as the project is completed. The objective of percentage-of-completion is to recognize and measure the performance at the job site during the accounting period.

Under the percentage-of-completion method, costs (not billings) drive the revenue recognition. This is quite different from the manufacturing or sales environment where the billing and delivery of goods determine revenue recognition.

The basic concept for the percentage-of-completion method is that total estimated gross profit is recognized to the extent the job has been completed — if the job is half done, then half the total estimated profit should be recognized currently. The equation for this relationship is presented below:

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % =**
**Gross Profit to Date**

Current period gross profit is the gross profit to date less gross profit recognized in previous periods.

The equation above can be broken down further when you consider that:

**Estimated Total Contract Price = Original Contract Price + Modifications**
**Estimated Total Contract Costs = Costs to date + Estimated Costs to Complete**

The rest of this section will consider each of the elements of the percentage-of-completion equation.

## ESTIMATED TOTAL CONTRACT PRICE EQUALS ORIGINAL CONTRACT PRICE PLUS MODIFICATIONS

The original contract price is determined primarily by the terms of the contract and the basic contract price. It may be fixed or highly variable, depending on the type of contract involved. The types of contracts were discussed in Chapter 1. Exhibit 2-1 describes the various types of contracts and some factors to consider when determining total price (in addition to basic contract price). The presence of one or more of these factors may make the contract price highly variable.

SOP 81-1 does not explicitly state when items such as incentives or penalties should be recognized. In practice, FASB Statement No. 5, *Accounting for Contingencies*, and FIN No. 14, *Reasonable Estimation of the Amount of a Loss* (an interpretation of FASB Statement No. 5), criteria are often used. For example, if the incurrence of a penalty is *probable* and the amount can be *reasonably estimated*, then the penalty should be recognized.

**Exhibit 2-1**
**Contract Terms to Consider When Determining Contract Price**

| Contract Type | Contract Term That May Affect Contract Price |
|---|---|
| Fixed-price or unit-price | • Price redetermination clause.<br>• Adjustment schedule based on application of economic price adjustment.<br>• Incentives.<br>• Penalties. |
| Time-and-materials | • Guaranteed maximums to labor and materials.<br>• Assigned markups. |
| Cost-type | • Definition of reimbursable costs.<br>• Definition of overhead recovery rates or fees.<br>• Fees based on performance criteria.<br>• Provisions for maximum total reimbursable costs.<br>• Penalties relating to underruns and overruns of target prices, completion dates, or plant capacity. |

Customer-furnished materials may also impact the determination of contract revenues. In some cases, customers may be more capable of acquiring materials or they may have more leverage with suppliers. In those circumstances, the contractor usually tells the customer of the nature, type and characteristics or specifications of the materials.

As a general rule, revenues (and costs) should include all customer-furnished materials for which the contractor has an associated risk, including items on which the fee is based. For example, if the contractor is responsible for the ultimate acceptability of performance of the project based on customer-furnished materials, then the contractor is at risk, and therefore those materials should be included in the determination of revenue.

Modifications to the original contract may include:

- Change orders.
- Contract options and additions.
- Claims.

## Change Orders

Change orders are modifications of an original contract that effectively change the provisions of the contract without adding new provisions, for example, increasing the number of cubic yards of earth to be removed from an excavation site.

Change orders are accounted for according to their characteristics and the circumstances in which they occur.

Approved change orders are those in which the owner has approved both the scope and price of the work. These are accounted for by adjusting the contract revenue and cost.

However, work on change orders is frequently performed before obtaining written approval. The accounting for unapproved change orders depends on whether it is probable the contractor will recover the cost of the change order.

- If it is *not* probable that costs of the change order will be recovered, they should be expensed and the profit estimate of the contract revised.
- If it is probable the costs will be recovered through a change order, the contractor has two options: (1) costs should be deferred until the change order is approved; or (2) they may be recognized as a contract cost and contract revenue recognized in the same amount.

**Reading Between the Lines**

It is usually rare that a contractor will be able to recognize profit from an unpriced change order. Paragraph 62(c) of SOP 81-1 describes circumstances that indicate realization of the unpriced change order is probable. These include circumstances in which the contractor's historical experience provides such assurance or in which the contractor has received a bona fide pricing offer from a customer and records only the amount of the offer as revenue.

- Change orders are frequently a source of profit. If it is probable the increase in contract revenue will be greater than the cost of the change order, and if the amount of revenue can be reasonably estimated, then the original contract price should be adjusted for that amount when the costs are recognized, but only if the realization of the unpriced change order is probable.

If change orders are in dispute or are unapproved in regard to both scope and price, they should be evaluated as claims.

## Contract Options and Additions

Contract options and additions are like change orders except they are much larger in scope and may be treated as a separate contract. Options and additions should be treated as a separate contract in *any* of the following circumstances:

- The product or service to be provided differs significantly from the product or service provided under the original contract.

- The price of the new product or service is negotiated without regard to the original contract and involves different economic judgments.

- 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 for combining contracts. Exercised options or additions that do not meet the criteria for treatment as a separate contract or for combining with the original contract should be treated as change orders.

## Claims

Claims are amounts in excess of the original contract price that a contractor tries to collect, such as a disputed change order. A claim may also result from unanticipated costs incurred by the contractor that are not part of the existing contract.

Costs related to claims should be expensed as contract costs are incurred. Revenues related to claims may or may not be recognized concurrently, depending on the circumstances.

In order to record revenues associated with a claim, the contractor must be able to demonstrate that the claim will result in additional contract revenue and the amount can be reliably estimated. Those two requirements give rise to the following four criteria, all of which must be met:

1. 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.

2. 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.

3. Costs associated with the claim are identifiable or otherwise determinable and are reasonable in view of the work performed.

4. The evidence supporting the claim is objective and verifiable, not based on management's "feel" for the situation or on unsupported representations.

If the above criteria are met, revenue from the claim should be recorded, *but only to the extent that contract costs relating to the claim have been incurred.*

> In other words, any profit related to a claim should not be recognized until the revenue is collected. If material, the amount of recorded claims should be disclosed in the financial statements.

## ESTIMATED TOTAL COSTS EQUAL COSTS TO DATE PLUS ESTIMATED COSTS TO COMPLETE

The contractor must be able to identify, estimate, and accumulate costs for each job. This section discusses the accounting treatment for various types of costs the contractor might incur.

### Precontract Costs

Precontract costs are those incurred before the contract is awarded, for example, engineering, architectural or mobilization costs. Precontract costs may also include the cost of equipment, material, and supplies. Learning or start-up costs may also be considered precontract costs.

Precontract costs that have no future benefits unless the contract is procured can be deferred only if cost recovery is probable. These deferred costs should be separately classified on the balance sheet and either transferred to contract costs when the contract is awarded or expensed as a period cost when recovery is no longer probable.

If the recovery of precontract costs is not probable, then these costs should be expensed as a period cost. If the contractor later is awarded the contract for which the precontract costs were incurred, they should *not* be reinstated by a credit to income.

### Direct Costs

Direct costs include material, labor, and subcontracting costs that are clearly related to the job. These are capitalized as job costs.

## Indirect Costs

Indirect costs include the following:

- Indirect labor.
- Contract supervision.
- Tools and equipment.
- Supplies.
- Quality control and inspection.
- Insurance.
- Repairs and maintenance.
- Depreciation and amortization.

In some instances, support costs such as central preparation and processing of payrolls may also be considered indirect costs.

Indirect costs should be allocated to contracts in a systematic and rational way. The most common methods of allocating indirect costs include allocations based on direct labor costs, direct labor hours, or a combination of both. Deciding which method to use is a matter of judgment.

### Example 2-3: Allocation of Indirect Costs

ABC Contractors uses direct labor hours to allocate indirect costs. The total direct labor hours for Project A were 1,000 for the year. Total direct labor hours for the entire company on all jobs during the year was 10,000 hours.

In this situation, ABC would allocate 10% of its indirect costs (1,000 ÷ 10,000) to Project A.

**Reading Between the Lines**

No contractor will allocate exactly 100% of indirect costs to individual jobs. Generally there will be over- or underapplied indirect costs. These costs are *not* treated as general and administrative costs but are considered cost of earned revenues and included in the determination of gross profit.

The Audit and Accounting Guide *Construction Contractors* includes example financial statements, including a schedule of Earnings from Contracts. (In the May 1, 1999 Guide, this schedule is on page 160.) Turn to this schedule and note how underapplied indirect costs have been treated.

If under- or overapplied indirect costs become too large, the allocation bases or methodology should be reviewed.

## Equipment and Small Tools

Equipment is generally allocated based on a use rate, such as dollars per hour of use. For example, a contractor may charge out a backhoe at $100 per hour. If a project uses a backhoe for a day (8 hours), the job costs on that job would reflect an $800 charge.

Determining the use rate is a matter of judgment. Theoretically, the rate should be comparable to the rate a lessor would charge users in the same location, except for the profit element. In developing the use rate, the contractor should take into account all costs of the equipment, including:

- The cost of the equipment, less estimates of its salvage value or rental if it is leased.
- The probable life of the equipment.
- The average idle time during the life or period of hire of the equipment.
- The costs of operating the equipment such as repairs, storage, insurance and taxes.

Small tools should be charged to a contract as they are consumed. As a practical matter, they are usually charged to contracts when purchased. If small tools are significant, they can be accounted for as inventory or fixed assets.

Under- and overapplied equipment charges are treated the same as other under- or overapplied indirect charges. If the amount of these charges becomes significant, the contractor should evaluate the propriety of their allocation use rate or method.

## Impairment Writedowns for Equipment and Other Long-Lived Assets

FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*, requires that equipment and other long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Because the construction industry is inherently capital-intensive, this Statement is likely to have a significant effect on many construction contractors.

In general, the Statement breaks long-lived assets into two groups, those held for sale, and those held for use.

### *Held for Sale*

Long-lived assets held for sale should be reported at the lower of carrying value or fair value less costs to sell. This is not a complicated concept – essentially it requires the contractor to record a loss on the disposal of fixed assets as soon as management becomes committed to sell the asset.

***Held for Use***

For long-lived assets held for use, the valuation process is essentially three steps.

- Step One: Look for signs of impairment. Management is required to review long-lived assets held for use to determine if "events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable." The Statement goes on to list examples (not an all-inclusive list) that **may** indicate impairment. For contractors, indicators of impairment may include:
  - A reduction in the extent to which an asset is used. Look for significant underapplied equipment costs as an indication of idle equipment that may be impaired.
  - A dramatic change in the manner in which an asset is used.
  - A substantial drop in the market value of an asset.
  - A change in the law or business environment.
  - Forecasts showing lack of long-term profitability.
- Step Two: Estimate future cash flows. **If** there are signs that an asset may be impaired, then the contractor must estimate the sum of the expected future cash flows of the asset and compare these sums – undiscounted and without interest – to the carrying amount of the asset.
- Step Three: Recognize impairment. **If** the sum of the undiscounted future cash flows is less than the carrying value of the asset, then an impairment loss should be recognized and the asset written down to fair value.

Impairment losses are required to be reported as an operating expense. Although the reporting requirements for construction contractors is not specifically addressed by Statement 121, in this author's opinion, impairment losses on construction equipment should be reported the same as under- or overapplied indirect costs, that is, as a cost of earned revenue and included in the determination of gross profit. Fixed asset impairment losses should *not* be considered a general and administrative (G&A) expense, unless the asset itself is used for G&A purposes.

## General, Administrative and Selling Expenses

G&A expenses are normally charged to expense as a period cost. In some situations they may be accounted for as contract costs under the completed-contract method or as indirect costs by government contractors.

Selling expenses should be accounted for as period costs unless they meet the criteria for precontract costs.

## Back Charges

Back charges are billings for work performed or costs incurred by one party that should have been performed or incurred by another. For example, a painter comes to paint a room and discovers that the drywall joints have not been sanded. Rather than call the drywall subcontractor to come and finish his work, the painter may sand the joints himself. The cost of that work would be back charged to the drywall subcontractor.

Back charges should be accounted for as follows:

- Back charges should be recorded as receivables and, to the extent considered collectible, applied to reduce contract costs. Back charges in dispute should be accounted for as a claim.

- 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.

## Costs to Complete

Costs incurred to date is only one of the components of total estimated costs. The other component is estimated costs to complete. This is a significant variable in determining income earned and a significant factor in accounting for contracts.

SOP 81-1 makes the following observation:

> The ability to estimate covers more than the estimating 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.

SOP 81-1 offers the following guidance on estimating costs to complete:

- 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.

- In estimating total contract costs, the quantities and prices of all significant elements of cost should be identified.

- 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.

- 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.

- Estimates of cost to complete should be reviewed periodically and revised as appropriate to reflect new information.

**Using Post-Balance Sheet Information**

Should estimates be revised to reflect new information that becomes available after the balance sheet date? For example, the balance sheet date is December 31, but usually the financial statements are not finalized until March 1 of the following year. Should the contractor use the estimates as of December 31, or should it use the most current information as of March 1?

The literature is silent on this issue. As a practical matter, most contractors use the most current information available, in this case, estimates as of March 1. The primary issue is one of financial statement credibility. Most sureties would question the credibility of a set of financial statements that indicated a given project would produce a profit of $10 (using December 31 estimates) when at the time of the preparation of the financial statements (March 1) the contractor knew that project would only have a $5 profit. Courts generally view subsequent costs as an important audit step to verify year-end estimates.

Estimating costs to complete will be discussed further in Chapter 6, "Internal Control Considerations."

## DETERMINING THE PERCENTAGE COMPLETE

In practice, a number of methods are used to measure the extent of progress toward completion. SOP 81-1 does not require any one method or establish criteria for when certain methods are acceptable. Different methods will be appropriate under different circumstances. Three of the more popular methods are discussed below.

### Cost-to-Cost

The cost-to-cost method measures percentage complete based on the ratio of costs incurred to date to total estimated costs. In using this method, some costs should be disregarded, for example the costs of uninstalled materials not specifically produced or fabricated for the project or of subcontracts that have not been performed. The cost of equipment purchased for a job should be allocated over the period of its expected use.

Cost-to-cost is the most commonly used method and is generally preferred by the sureties. Departure from cost-to-cost should be disclosed and justified.

**Something to Think About**

Use of project engineer to architect's estimates of percentage complete is usually inappropriate. Contractors are paid based on a schedule of values; therefore, the POC provided by the project engineer will usually equal billing without regard to cost.

**Reading Between the Lines**

SOP 81-1 says that costs should be excluded if they do not relate to project performance. In practice, judgment may be required to determine which costs do or do not fit this general guidance. This is particularly true of jobs that are performed in remote areas of the world, where the mobilization of equipment and supplies may be almost as important as performing the work itself.

## Efforts-Expended

The efforts-expended method may use any number of bases, including 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. Subcontractor hours should be included in the calculation. If the contractor is not able to make reasonably dependable estimates of the subcontractor's hours throughout the course of the project, the labor-hours method should not be used.

One advantage an efforts-expended method may have over the cost-to-cost method is that it does attach profit to the mobilization effort. The efforts-expended method is well-suited to contractors who believe their profits are earned from their efforts and not from the value of materials. For example, a general contractor whose profits result more from its ability to manage subcontractors than the value of the subcontracts themselves, may find the efforts-expended method to be most appropriate.

## Units-of-Delivery

The units-of-delivery method is based on the ratio of units delivered to date to total expected units to be delivered. For example, a paving contractor may determine the percentage of completion of a project based on the cubic yards of pavement laid for a highway.

Regardless of the method used to measure progress toward completion, the contractor should periodically review and confirm progress through observation and inspection.

### THE MECHANICS OF APPLYING THE PERCENTAGE-OF-COMPLETION METHOD

The percentage-of-completion method affects three components of the income statement: earned revenue, cost of earned revenue, and gross profit.

Recall the equation introduced at the beginning of this section:

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % = Gross Profit to Date**

That equation calculates gross profit. The cost of earned revenue is the cost incurred on the contract during the period. Earned revenue is equal to gross profit plus cost of earned revenue. SOP 81-1 refers to this as Alternative B. This is the method most used by construction contractors.

Another way to apply the percentage-of-completion method is to multiply the total estimated contract revenue by the percentage complete to calculate earned revenue for the current period. The cost of earned revenue is calculated by multiplying the percentage complete by the total estimated contract costs. Gross profit is the difference between the two. SOP 81-1 refers to this as Alternative A. This method is most appropriate for production-oriented contractors that are using the units-of-delivery method. Both ways of applying the percentage-of-completion method are acceptable under SOP 81-1.

### THE BALANCE SHEET

Keep in mind one of the concepts introduced in the last chapter: the billing on a construction project bears little resemblance to its performance. As noted earlier in this chapter, revenue recognition for a contractor is driven by costs, not by billing.

It is rare that a contractor's billing on a job in progress will exactly equal the costs plus estimated earnings as of the balance sheet date. At the balance sheet date, there will usually be a difference between the two.

CPAs are familiar with the concept of over- and underbillings. For a contractor, the concept is the same. Underbillings are an asset on the balance sheet; overbillings are a liability. The two are not netted.

## THE COMPLETED-CONTRACT METHOD

The second method for recognizing revenues on construction contracts is the completed-contract method. As noted earlier, this method should only be used if:

- It does not vary materially from the percentage-of-completion method; or
- The contractor is unable to make reasonably dependable estimates.

The completed-contract method is sometimes used by contractors who primarily have short-term contracts.

**Example 2-4: Applying the Percentage-of-Completion Method**

Assume the following for a given contract:

| | |
|---|---|
| Total price | $2,000 |
| Total estimated cost | 1,600 |
| Gross profit | $ 400 |
| Costs to date | $ 900 |
| Percent complete (labor hours method) | 50% |

The calculations under Alternative A (used mostly by contractors using the units of-delivery method).

| | |
|---|---|
| Earned revenue (2,000 x 50%) | $1,000 |
| Cost of earned revenue (1,600 x 50%) | 800 |
| Current period gross profit | $ 200 |

The calculations under Alternative B (used by most contractors, this is the formula we have been working with in this section).

| | |
|---|---|
| Gross profit (50% x 400) | $ 200 |
| Cost of earned revenue (actual) | 900 |
| | |
| Earned revenue | $1,100 |
| Cost of earned revenue (actual) | 900 |
| Current period gross profit | $ 200 |

Under the two methods, the gross profit is the same, but earned revenue and cost of earned revenue may be slightly different.

Under the completed-contract method, all revenues, costs, and profits are deferred until the contract is completed. While the contract is still in process, an asset or liability is recorded for the difference between the costs incurred on the contract and the billings. Once a contract is substantially complete, all of the revenue, costs and profits on the contract are recognized.

Determining when a contract is substantially complete is a matter of judgment. Generally, a contract is considered substantially complete when the remaining costs, as well as the potential risks on a contract, are insignificant.

CPAs must consider the risk of issuing an unqualified opinion in cases where the contractor lacks the ability to provide reasonably dependable estimates.

## ACCOUNTING FOR LOSS CONTRACTS

Regardless of the method of accounting used (percentage-of-completion or completed-contract) estimated losses on contracts should be recognized in their entirety in the period in which the loss is determined.

This means that even under the percentage-of-completion method, losses are *not* prorated over the job, but are recognized immediately.

## SUMMARY

This chapter focused on contract accounting, in particular the percentage-of-completion method. In discussing the percentage-of-completion method, this chapter introduced the following formula:

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % = Gross Profit to Date**

This formula is important because the auditing chapters will be structured to follow this same formula.

New accounting pronouncements may also impact the construction contractor industry. The best source for an introductory discussion of these matters is contained in the annual *Construction Contractor Audit Risk Alert* published by the AICPA.

# ILLUSTRATION: THE PERCENTAGE-OF-COMPLETION METHOD

Here is a detailed illustration of a fictitious drywall subcontractor. Included is a schedule of contracts in progress. The columns in the schedule correspond to the percentage-of-completion method introduced earlier in the chapter. To get you thoroughly familiar with the mechanics of the percentage-of-completion method this illustration also provides a number of scenarios in the form of problems and their solutions.

**Step One**: Build a spreadsheet template of the percentage-of-completion formula. (It is possible to prepare the template manually, but it may take you extra time.) Once you construct your template, you get to play "what if" to see how different situations affect the various income statement and balance sheet accounts (for example, how income is affected if costs to complete are understated.)

Before building the template, you might want to review the requirements of step two of this illustration. Generally, this step is much easier if you have a computerized spreadsheet to work with, but you may perform the calculation manually if you wish.

The following two pages is a partially completed schedule of contracts in progress for Desert Drywall. The first eight and last three columns of the schedule correspond to the percentage-of-completion model.

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % = Gross Profit to Date**

Where:

**Estimated Total Contract Price = Original Contract Price + Modifications**

**Estimated Total Contract Costs = Costs to date + Estimated Costs to Complete**

Columns 9, 10 and 11 are used to determine the balance sheet accounts. The totals in columns 10 and 11 tie directly to the balance sheet. Current period gross margin ties directly to the supplementary schedule, "Earnings from Contracts." (See the example financial statements included as an appendix to the Audit and Accounting Guide *Construction Contractors*.)

The blank columns on the schedule are all formula-driven. For example, Total Contract Revenues is the sum of Original Contract Price plus Modifications.

Compare your template to the sample completed schedule of contracts on pages 42 and 43 before moving on to Step Two.

Desert Drywall Inc.
Contracts In Progress

| Job | Revenues: Orig Contract Price | Revenues: Mod | Revenues: Total Contract | Costs: Costs To Date | Costs: Est Costs To Complete | Costs: Est Total Costs | Gross Profit |
|---|---|---|---|---|---|---|---|
| Wayne Newton Elem School | 175,500 | | | 156,847 | 9,550 | | 0 |
| Desert Strip Restaurant | 60,000 | 5,874 | | 57,372 | 3,125 | | 0 |
| MMG Hotel | 3,375,000 | | | 72,325 | 2,980,580 | | 0 |
| Lucky 7 Casino | 277,550 | | | 171,206 | 74,395 | | 0 |
| Oasis Apts. Phase II | 810,000 | 49,965 | | 208,401 | 578,410 | | 0 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | | 251,627 | 22,984 | | 0 |
| | 4,948,050 | 92,953 | | 917,778 | 3,669,044 | | |

Desert Drywall Inc.
Contracts In Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings In Excess of Billings | Billings In Excess of Costs and Estimated Earnings | Gross Profit Recognized To Date | Gross Profit Recognized Prior Periods | Gross Profit Recognized Current Period |
|---|---|---|---|---|---|---|---|
| Wayne Newton Elem School | | 151,458 | | | | 5,215 | |
| Desert Strip Restaurant | | 65,874 | | | | | |
| MMG Hotel | | 85,000 | | | | | |
| Lucky 7 Casino | | 196,805 | | | | | |
| Oasis Apts. Phase II | | 215,000 | | | | | |
| Lost Wages Convention Ctr | | 287,114 | | | | 3,859 | |
| | | 1,001,251 | | | | 9,074 | |

THE FOLLOWING TWO PAGES SHOW THE COMPLETED SCHEDULE OF CONTRACTS IN PROGRESS. COMPARE YOUR TEMPLATE TO IT BEFORE MOVING ON TO STEP TWO.

# SAMPLE COMPLETED SCHEDULE OF CONTRACTS IN PROGRESS: STEP ONE

Desert Drywall Inc.
Contracts In Progress

| Job | Revenues | | | Costs | | | Gross Profit |
|---|---|---|---|---|---|---|---|
| | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | |
| Wayne Newton Elem School | 175,500 | | 175,500 | 158,847 | 9,550 | 166,397 | 9,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | 72,325 | 2,980,580 | 3,052,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 74,395 | 245,601 | 31,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 208,401 | 578,410 | 786,811 | 73,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | 251,627 | 22,984 | 274,611 | 12,503 |
| | 4,948,050 | 92,953 | 5,041,003 | 917,778 | 3,669,044 | 4,586,822 | 454,181 |

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized | | |
|---|---|---|---|---|---|---|---|
| | | | | | To Date | Prior Periods | Current Period |
| Wayne Newton Elem School | 94% | 151,458 | 13,970 | | 8,581 | 5,215 | 3,366 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 2% | 85,000 | | 5,044 | 7,631 | | 7,631 |
| Lucky 7 Casino | 70% | 196,805 | | 3,328 | 22,271 | | 22,271 |
| Oasis Apts. Phase II | 26% | 215,000 | 12,777 | | 19,376 | | 19,376 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 24,030 | 11,457 | 3,859 | 7,598 |
| | | 1,001,251 | 26,747 | 35,805 | 74,415 | 9,074 | 65,341 |

**Step Two:** Once the template is built, it can be used to see how the financial statements are affected by certain scenarios. (Note: The suggested solution assumes that the template is returned to its original status in between questions. That is, the questions do not build on each other; each question is treated independently.)

**Problem One—Original contract price: incentives.**

Desert Drywall is nearing the completion of the Wayne Newton Elementary School project. There is a $10,000 incentive built into the contract based on the completion date, and it appears probable that Desert Drywall will qualify to receive this payment.

- At what point would it be proper to include incentives in the original contract price?
- Assume that the $175,500 does *not* include the $10,000 incentive. Using the template, increase original contract price by this amount. Does the entire amount affect income in the current period? Why or why not? If there is a difference, where does it go?

**Solution One:** See pages 47 through 49.

**Problem Two—Original contract price: penalties.**

Desert Drywall is also nearing completion of the Lost Wages Convention Center. There is a penalty built into this contract based on completion date, and it appears probable that Desert Drywall will incur some penalty. The estimated amount of this penalty ranges from $5,000 to $15,000, with no amount in the range being more likely than any other.

- At what point would it be proper to include penalties in the original contract price?
- Under the above situation, how would the penalty be measured?
- Assume that the $250,000 does *not* include the penalty. Using the template, decrease the original contract price by the penalty. Does the entire penalty affect income in the current period? Why or why not? If there is a difference, where does it go?

**Solution Two:** See pages 50 through 52.

**Problem Three—Change orders.**

Desert Drywall has incurred costs of $10,000 on an unapproved change order on the MMG Hotel project. The original template reflects neither the cost nor the revenue from this change order.

- In general, how should change orders be accounted for?

- Assume that management of Desert Drywall believes it is probable that the cost of the change order will be recovered. It elects not to defer the cost of the change order, but instead to run the cost and probable recovery through the schedule of contracts in progress. Using the template, these changes may be made.

- How does the change order affect estimated total gross margin? How does it affect gross margin recognized in the current year?

**Solution Three:** See pages 53 through 55.

**Problem Four—Claims.**

Desert Drywall has a claim of $15,000 relating to the Oasis Apartments project. Assume that it has deferred all costs relating to this claim and that it is not reflected on the original template.

- What is the difference between a claim and a change order. In general, how should claims be accounted for?

- Adjust the template to properly account for the claim. Assume that revenues from the claim do not meet the criteria for recognition. How does the claim affect current period margins?

**Solution Four:** See pages 56 through 58.

**Problem Five—Adjustment to costs to date.**

At the end of the year, Desert Drywall has a significant amount of overapplied indirect costs. Management reevaluates its allocation method and determines that $32,000 of indirect costs have been overapplied to the jobs in progress as follows:

| | |
|---|---|
| Wayne Newton Elementary School | $ 5,000 |
| Desert Strip Restaurant | 3,000 |
| MMG Hotel | 4,000 |
| Lucky 7 Casino | 5,000 |
| Oasis Apartments | 7,000 |
| Lost Wages Convention Center | 8,000 |
| | $ 32,000 |

- Using the template, adjust costs incurred to date for each job by the amount indicated above. Total estimated gross margin for all jobs increases by $32,000. How much does the current year gross margin increase? Overall, will Desert Drywall's net income increase, decrease, or stay the same?

**Solution Five:** See pages 59 through 61.

**Problem Six—Estimated costs to complete.**

Estimated costs to complete were underestimated by $10,000 on both the Lucky 7 Casino project and the Oasis Apartments project.

- Using the template, increase estimated costs to complete by $10,000 for each job. How is gross margin in the current period affected? Why is there a difference in the two jobs, even though the amount of the change in estimate was the same?

**Solution Six:** See pages 62 through 64.

## SOLUTION ONE

- SOP 81-1 says that estimates of contract revenue should be revised "as events occur and as uncertainties are resolved." The resolution of uncertainties is a matter of assessing probabilities of future outcomes. (See FASB Statement No. 5.)

  The SOP does not explicitly state when uncertainties are considered "resolved," but generally, that is when the future event is considered probable. In this case, when it becomes probable the contractor will earn the incentive, then it is recognized in the financial statements.

- The entire amount of the incentive does *not* affect income in the current period. The incentive is affected by the percent complete of the individual job. In this case, current period gross margin is increased only by $10,000 x 94% (some difference due to rounding).

  On the following pages are schedules of contracts in progress that show the effects of each of the situations covered in step two of the illustration.

## SOLUTION ONE

Desert Drywall Inc.
Contracts In Progress

| Job | Revenues | | | Costs | | | Gross |
|---|---|---|---|---|---|---|---|
| | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Profit |
| Wayne Newton Elem School | 185,500 | | 185,500 | 156,847 | 9,550 | 166,397 | 19,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | 72,325 | 2,980,580 | 3,052,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 74,395 | 245,601 | 31,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 208,401 | 578,410 | 786,811 | 73,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | 251,627 | 22,984 | 274,611 | 12,503 |
| | 4,958,050 | 92,953 | 5,051,003 | 917,778 | 3,669,044 | 4,586,822 | 464,181 |

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized | | |
|---|---|---|---|---|---|---|---|
| | | | | | To Date | Prior Periods | Current Period |
| Wayne Newton Elem School | 94% | 151,458 | 23,396 | | 18,007 | 5,215 | 12,792 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 2% | 85,000 | | 5,044 | 7,631 | | 7,631 |
| Lucky 7 Casino | 70% | 196,805 | | 3,328 | 22,271 | | 22,271 |
| Oasis Apts. Phase II | 26% | 215,000 | 12,777 | | 19,376 | | 19,376 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 24,030 | 11,457 | 3,859 | 7,598 |
| | | 1,001,251 | 36,173 | 35,805 | 83,841 | 9,074 | 74,767 |

## SOLUTION TWO

- Penalties are accounted for the same way as incentives. The amount should be recognized when the outcome is considered probable and the amount can be reasonably estimated.

- Under FIN No. 14, the lower amount of the range should be used when no amount within the range is more likely than the others.

- No, the entire penalty does not affect current period income. Again the effect on current period income is also a function of the percentage complete.

Desert Drywall Inc.
Contracts In Progress

| | Revenues | | | Costs | | | |
|---|---|---|---|---|---|---|---|
| Job | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Gross Profit |
| Wayne Newton Elem School | 175,500 | | 175,500 | 156,847 | 9,550 | 166,397 | 9,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | 72,325 | 2,980,580 | 3,052,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 74,395 | 245,601 | 31,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 208,401 | 578,410 | 786,811 | 73,154 |
| Lost Wages Convention Ctr | 245,000 | 37,114 | 282,114 | 251,627 | 22,984 | 274,611 | 7,503 |
| | 4,943,050 | 92,953 | 5,036,003 | 917,778 | 3,669,044 | 4,586,822 | 449,181 |

## SOLUTION TWO

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized | | |
|---|---|---|---|---|---|---|---|
| | | | | | To Date | Prior Periods | Current Period |
| Wayne Newton Elem School | 94% | 151,458 | 13,970 | | 8,581 | 5,215 | 3,366 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 2% | 85,000 | | 5,044 | 7,631 | | 7,631 |
| Lucky 7 Casino | 70% | 196,805 | | 3,328 | 22,271 | | 22,271 |
| Oasis Apts. Phase II | 26% | 215,000 | 12,777 | | 19,376 | | 19,376 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 28,612 | 6,875 | 3,859 | 3,016 |
| | | 1,001,251 | 26,747 | 40,387 | 69,833 | 9,074 | 60,759 |

## SOLUTION THREE

- If it is *not* probable that costs of the change order will be recovered, they should be expensed and the profit estimate of the contract revised.

  If it *is* probable the costs will be recovered through a change order, the costs should be deferred until the change order is approved. Alternatively, they may be recognized as a contract cost and contract revenue recognized to the extent of the cost.

  If it is probable the contract price will be adjusted by an amount greater than the cost of the change order and the amount can be reasonably estimated, then the original contract price should be adjusted for that amount when the costs are recognized, but only if the realization of the unpriced change order is probable.

- The estimated total margin is the same. However, the margin in the current year increased by approximately 10%. This is because the increase in costs to date has affected the calculation of percentage complete. As a result, more gross margin is being recognized.

  Note also that changing the costs to date has an impact on the balance sheet accounts. In this case, the job has gone from an overbilled status to an underbilled status.

## SOLUTION THREE

**Desert Drywall Inc.**
**Contracts In Progress**

| Job | Revenues | | | Costs | | | Gross |
|---|---|---|---|---|---|---|---|
| | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Profit |
| Wayne Newton Elem School | 175,500 | | 175,500 | 156,847 | 9,550 | 166,397 | 9,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | 10,000 | 3,385,000 | 82,325 | 2,980,580 | 3,062,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 74,395 | 245,601 | 31,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 208,401 | 578,410 | 786,811 | 73,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | 251,627 | 22,984 | 274,611 | 12,503 |
| | 4,948,050 | 102,953 | 5,051,003 | 927,778 | 3,669,044 | 4,596,822 | 454,181 |

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized | | |
|---|---|---|---|---|---|---|---|
| | | | | | To Date | Prior Periods | Current Period |
| Wayne Newton Elem School | 94% | 151,458 | 13,970 | | 8,581 | 5,215 | 3,366 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 3% | 85,000 | 5,982 | | 8,657 | | 8,657 |
| Lucky 7 Casino | 70% | 196,805 | | 3,328 | 22,271 | | 22,271 |
| Oasis Apts. Phase II | 26% | 215,000 | 12,777 | | 19,376 | | 19,376 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 24,030 | 11,457 | 3,859 | 7,598 |
| | | 1,001,251 | 32,729 | 30,761 | 75,441 | 9,074 | 66,367 |

## SOLUTION FOUR

- A claim is a disputed change order. Claims may also arise when the contractor tries to collect more than the original contract price (for example, the job goes over budget, and the contractor wants to renegotiate.)

  Costs on a claim are recognized immediately. However, any related revenues are deferred until the contractor demonstrates that the claim will result in additional contract revenue and the amount can be reliably estimated.

- Unlike the change order, the claim decreases current period gross margin. Revenue from a claim is generally deferred, which immediately decreases estimated final gross margin. (The increase in percent complete is not enough to offset this decrease in the dollar amount of the gross margin.)

Desert Drywall Inc.
Contracts In Progress

| Job | Revenues | | | Costs | | | |
|---|---|---|---|---|---|---|---|
| | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Gross Profit |
| Wayne Newton Elem School | 175,500 | | 175,500 | 156,847 | 9,550 | 166,397 | 9,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | 72,325 | 2,980,580 | 3,052,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 74,395 | 245,601 | 31,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 223,401 | 578,410 | 801,811 | 58,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | 251,627 | 22,984 | 274,611 | 12,503 |
| | 4,948,050 | 92,953 | 5,041,003 | 932,778 | 3,669,044 | 4,601,822 | 439,181 |

## SOLUTION FOUR

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized To Date | Gross Profit Recognized Prior Periods | Gross Profit Recognized Current Period |
|---|---|---|---|---|---|---|---|
| Wayne Newton Elem School | 94% | 151,458 | 13,970 | | 8,581 | 5,215 | 3,366 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 2% | 85,000 | | 5,044 | 7,631 | | 7,631 |
| Lucky 7 Casino | 70% | 196,805 | | 3,328 | 22,271 | | 22,271 |
| Oasis Apts. Phase II | 28% | 215,000 | 24,604 | | 16,203 | | 16,203 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 24,030 | 11,457 | 3,859 | 7,598 |
| | | 1,001,251 | 38,574 | 35,805 | 71,242 | 9,074 | 62,168 |

## SOLUTION FIVE

- The current year gross margin increases by approximately $19,000, again due to the effect that the percentage complete has on the calculation of gross margins. The difference ($32,000 - $19,000) is reflected on the balance sheet. Before the adjustment, the net overbillings were approximately $9,000; after the adjustment, net overbillings are approximately $22,000.

  After this adjustment, Desert Drywall will show a $13,000 decrease in net income. Overapplied indirect costs are a credit on the income statement. These have been reduced by $32,000, but the contracts have picked up only $19,000. The rest of the adjustment is sitting on the balance sheet and won't be realized until the jobs are complete.

## SOLUTION FIVE

Desert Drywall Inc.
Contracts in Progress

| Job | Revenues | | | Costs | | | Gross |
|---|---|---|---|---|---|---|---|
| | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Profit |
| Wayne Newton Elem School | 175,500 | | 175,500 | **151,847** | 9,550 | 161,397 | 14,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | **54,372** | 3,125 | 57,497 | 8,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | **68,325** | 2,980,580 | 3,048,905 | 326,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | **166,206** | 74,395 | 240,601 | 36,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | **201,401** | 578,410 | 779,811 | 80,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | **243,627** | 22,984 | 266,611 | 20,503 |
| | 4,948,050 | 92,953 | 5,041,003 | 885,778 | 3,669,044 | 4,554,822 | 486,181 |

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized | | |
|---|---|---|---|---|---|---|---|
| | | | | | To Date | Prior Periods | Current Period |
| Wayne Newton Elem School | 94% | 151,458 | 13,658 | | 13,269 | 5,215 | 8,054 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,580 | 7,922 | | 7,922 |
| MMG Hotel | 2% | 85,000 | | 9,367 | 7,308 | | 7,308 |
| Lucky 7 Casino | 69% | 196,805 | | 5,075 | 25,524 | | 25,524 |
| Oasis Apts. Phase II | 26% | 215,000 | 7,102 | | 20,701 | | 20,701 |
| Lost Wages Convention Ctr | 91% | 287,114 | | 24,752 | 18,735 | 3,859 | 14,876 |
| | | 1,001,251 | 20,760 | 42,774 | 93,459 | 9,074 | 84,385 |

## SOLUTION SIX

The difference is because the two jobs are at different stages of completion. When changes are made to costs to complete near the end of the job, they will have a greater impact on current period gross margin than changes that are made earlier in the job. All the more reason why increases in estimated costs to complete should be reflected as early in the job as possible.

Desert Drywall Inc.
Contracts In Progress

| | Revenues | | | Costs | | | |
|---|---|---|---|---|---|---|---|
| Job | Orig Contract Price | Mod | Total Contract | Costs To Date | Est Costs To Complete | Est Total Costs | Gross Profit |
| Wayne Newton Elem School | 175,500 | | 175,500 | 156,847 | 9,550 | 166,397 | 9,103 |
| Desert Strip Restaurant | 60,000 | 5,874 | 65,874 | 57,372 | 3,125 | 60,497 | 5,377 |
| MMG Hotel | 3,375,000 | | 3,375,000 | 72,325 | 2,980,580 | 3,052,905 | 322,095 |
| Lucky 7 Casino | 277,550 | | 277,550 | 171,206 | 84,395 | 255,601 | 21,949 |
| Oasis Apts. Phase II | 810,000 | 49,965 | 859,965 | 208,401 | 588,410 | 796,811 | 63,154 |
| Lost Wages Convention Ctr | 250,000 | 37,114 | 287,114 | 251,627 | 22,984 | 274,611 | 12,503 |
| | 4,948,050 | 92,953 | 5,041,003 | 917,778 | 3,689,044 | 4,606,822 | 434,181 |

## SOLUTION SIX

Desert Drywall Inc.
Contracts in Progress

| Job | Pct Comp | Progress Billings To Date | Costs and Estimated Earnings in Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Gross Profit Recognized To Date | Gross Profit Recognized Prior Periods | Gross Profit Recognized Current Period |
|---|---|---|---|---|---|---|---|
| Wayne Newton Elem School | 94% | 151,458 | 13,970 | | 8,581 | 5,215 | 3,366 |
| Desert Strip Restaurant | 95% | 65,874 | | 3,403 | 5,099 | | 5,099 |
| MMG Hotel | 2% | 85,000 | | 5,044 | 7,631 | | 7,631 |
| Lucky 7 Casino | 67% | 196,805 | | 10,897 | 14,702 | | 14,702 |
| Oasis Apts. Phase II | 26% | 215,000 | 9,919 | | 16,518 | | 16,518 |
| Lost Wages Convention Ctr | 92% | 287,114 | | 24,030 | 11,457 | 3,859 | 7,598 |
| | | 1,001,251 | 23,889 | 43,374 | 63,988 | 9,074 | 54,914 |

# CHAPTER 3

# WORKING WITH A SURETY

## INTRODUCTION

Chapter 1 introduced you to the basics of surety bonding and how most construction contractors must work closely with their surety. This chapter explores the relationship between contractor and surety in more detail.

**Why It Matters**

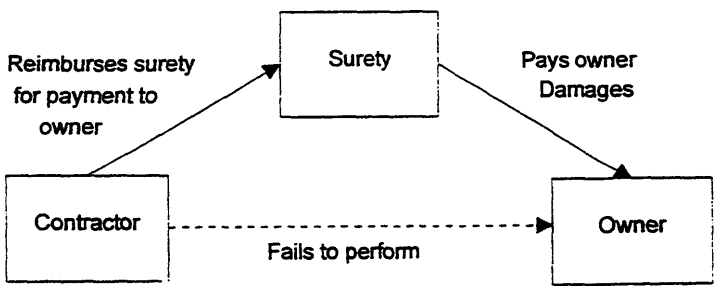
It's important for you to understand the surety process for the following reasons:

- Smaller, less sophisticated contractors may rely on you to help manage the surety relationship. The contractor may even ask you to make a preliminary determination of bonding capacity.
- The surety company is one of the principal users of the contractor's financial statements, and you should be sure the financial statements meet its needs.
- Audit materiality is a determination made from the *user's* point of view — i.e., an item is material if it affects the decision of the user, in this case, the surety.

## WHAT IS A SURETY BOND?

Recall the following diagram from Chapter 1.

**Figure 3-1: The Contractor/Surety/Owner Relationship**



A surety bond is a guarantee of the contractor's performance. As the diagram above suggests, if the contractor fails to perform under the construction contract, the surety pays the owner for damages. In turn, the contractor is obligated to reimburse the surety company for these payments to the owner. It is because of this relationship that a surety bond functions like a credit guarantee.

There are two main reasons why it is advantageous for an owner to require a contractor to post a bond:

1. A bond ensures that the owner will receive a finished product at the negotiated price.

2. The surety's due diligence process is designed to determine the competency of the contractor. In effect, the surety company prequalifies the contractor by eliminating those contractors that are unqualified to perform the work.

There are several types of bonds, and these are summarized in Exhibit 3-1 below.

**Exhibit 3-1**
**Types of Surety Bonds**

| Bond Type | Description | The Surety's Responsibility |
|---|---|---|
| Bid Bond | • States that the surety believes the contractor has the ability and resources to complete the project at the bid price.<br>• Assures that contractor will file its performance and payment bonds if awarded the contract.<br>• Used by owners to prequalify contractors. | • If contractor is awarded the contract but refuses to sign it, surety must pay owner difference between the winning bid and the next lowest bid. |
| Performance Bond | • Guarantees that contractor will complete project as specified by the contract. | • If contractor deviates from contract terms, surety must reimburse owner for any losses. |
| Maintenance Bond | • Guarantees against any faulty workmanship or materials.<br>• Usually good for one year after construction is complete. | • In the event of faulty workmanship or materials, surety must reimburse owner for any losses. |
| Payment Bond | • Guarantees payment to subcontractors and suppliers.<br>• Assures owner that project will be free of liens from unpaid subcontractors or suppliers. | • If contractor fails to pay subcontractors or suppliers, surety is required to pay. |

*(continued)*

**Exhibit 3-1** *(continued)*
**Types of Surety Bonds**

| | | |
|---|---|---|
| Completion Bond | • May be issued in lieu of performance and payment bonds.<br>• Guarantees that the contractor will perform and pay for all contracted work. | • If contractor fails to perform, surety must find another contractor to finish the work. |

## WHAT THE SURETY LOOKS FOR

The traditional "three Cs" of surety underwriting are: character, capacity, and capital.

**Food for Thought**

The credibility of a contractor's financial statements may be a reflection of a contractor's character. It is usually better to fully disclose bad news as early as possible rather than wait for the surety to discover it on its own. Financial statements that seem to make concerted attempts to disguise bad news (e.g., delay recognition of a loss) call into question their own credibility and that of the contractor.

**Character:** Does the contractor's past record indicate good character and responsibility in fulfilling its obligations and contracts?

A surety will gather information from owners for whom the contractor has worked. It may also question suppliers and subcontractors and may review the resumes and past histories of company owners and project managers. It is also common for the surety to make inquiries of the contractor's outside professionals, such as the CPA, banker, or lawyer.

**Capacity:** Does the construction firm have the skills, experience, knowledge, and equipment necessary to perform the work?

A contractor's performance history is often a good indication of production capacity. Generally, each production phase (for example, design, field construction, and completion) is evaluated separately. Sureties are hesitant to bond contractors working in new areas, both in terms of geography and project type.

**Capital:** Does the contractor have the necessary working capital, or access to working capital, to finance the project or work program and, if needed, to be able to absorb a reasonable loss on one or more projects?

Chapter 1 discussed some of the cash flow characteristics of the construction industry. Remember that a contractor must be able to finance the project up to the receipt of the first progress payment and in between progress payments from that point forward. The owner will also withhold the retainage (usually 10%) from these payments.

### EXAMPLE 3-1: WORKING CAPITAL AND CASH FLOW

Acme Contractors starts a new job. They incur $10 of precontract costs, and are awarded the bid. In February and March they incur $30 and $40, respectively, of job costs.

Acme bills in the middle of the month based on an unbalanced bid. In mid-February, they prepare and send a bill for $50. The owner pays promptly and in five weeks Acme receives a check for $45 (progress billing less the 10% retention). The cash flow for the first three months of this job are summarized as follows:

| | January | February | March |
|---|---|---|---|
| Outflows | | | |
| Precontract | (10) | | |
| Monthly job cost | | (30) | (40) |
| Inflows | | | |
| Mid-February billing | | | 50 |
| Less: retainage | | | (5) |
| Net Cash Flow | (10) | (30) | 5 |

Thus, for the first three months of the job, Acme has a cash flow deficit of $35. The job will be financed out of the contractor's own working capital.

Sureties may also be interested in a contractor's succession plan in the event a key person in the company retires or is incapacitated. A surety will want to be assured that any potential successor has the necessary experience and knowledge of the business. They will also want to be assured that the company retains sufficient equity if the succession plan calls for the buyout of an owner or management member.

**Value-Added Service**

Your construction clients may need your advice in picking a bonding agent. Get to know several who are experienced and successful. Nurture that relationship. Not only will it be helpful for your existing clients, but bonding agents can be an excellent reference source for new business.

## HOW THE SURETY USES A CONTRACTOR'S FINANCIAL STATEMENTS

The first user of the financial statements is generally not the surety but a bonding agent who represents several sureties. Different sureties have different underwriting criteria and preferences. The bonding agent will perform the first analysis of the contractor and determine which surety is best suited for that particular contractor.

The contractor's financial statements are used mostly to evaluate the third of the three Cs, capital. The financial statements for the three most recent years are usually required. A surety typically reads the financial statements, notes, and supplementary schedules and applies analytical procedures that address the following:

- *Profitability.* The contractor should be making adequate profits to allow the business to grow, even with the occasional losing project.

- *Liquidity and Cash Management.* The contractor should maintain adequate liquidity to finance operations without having to rely totally on outside sources. Overbillings (job borrow) should be properly managed (see Example 1-2).

- *Fixed Assets.* Fixed assets should be adequate but not excessive for the contractor's current operations.

- *Debt.* Debt payments and accrued expenses should be covered by the profits being made by the existing work program.

- *Equity.* Equity should support the current work program and possibly fund a losing project without being eliminated.

- *G&A Expenses.* General and administrative expenses should be appropriate for the size of the contractor. G&A expenses that fluctuate with large changes in the contractor's volume may indicate that the contractor is cost conscious and willing to make tough decisions. For example, if volume drops in half, will the contractor make the necessary cuts in overhead?

- *Officers' Salaries.* The relative size of officers' salaries indicates whether profits are staying in the business or being distributed to the owners. They may be an indication of how the owner will respond in difficult times that is, in tough times will the owner work for free?

The surety will calculate various ratios to help address the above issues. Comparisons are made to the contractor's prior year results and to the results of similar contractors published in the CFMA Financial Survey Results (see Chapter 1) or by Robert Morris Associates. (Robert Morris Associates is a not-for-profit organization of bank lending officers. Annually, it publishes *Financial Statement Studies*, a listing of key financial ratios and other information organized by SIC code). The ratios most often used by sureties are summarized in Exhibit 3-2.

**Exhibit 3-2**
**Example Ratios Used by Sureties**

| To Measure | Use Ratio | And Look For |
|---|---|---|
| Profitability | Gross Profit Percentage | • Trends<br>• Comparison to industry averages |
| Profitability | Net Income as a % of Revenue | • Trends<br>• Comparison to industry averages |
| Profitability | Backlog gross profit to G&A | • Should be greater than 50% |
| Profitability & Liquidity | Underbillings to Equity | • Must be less than 20% |
| Liquidity | Net Quick<br>Current Assets - (Inv + Ppd) :<br>Current Liab - Def Taxes | • Must be greater than 1:1<br>• Comparison to industry averages |
| Liquidity | Cash to Equity | • Should be greater than 20% |
| Liquidity | Cash to Overbilling | • Must be greater than 1:1 |
| Debt | Total Liab : Net Worth | • Less than 3:1 is considered good |
| Debt | Interest-Bearing Debt : Net Worth | • .8 to 1.0 |
| Debt | Debt coverage | • Over 1.25 |

*(continued)*

**Exhibit 3-2 (continued)**

| To Measure | Use Ratio | And Look For |
|---|---|---|
| Gen & Admin Exp | G&A : Revenue | • Comparison to industry averages<br>• Whether ratio stays relatively constant in slow times<br>• Should be less than 5% (excluding other discretionary expenses) |
| Officers' Salaries | Officers' Salaries : Revenue | • Comparison to industry averages |

In addition to key ratios, the surety will also analyze other financial information, some of which is included in the basic financial statements and some of which is not. Some of the more typical terms include the following:

## ACCOUNTS RECEIVABLE AGING

A surety analyzes the accounts receivable aging for the same reason an auditor analyzes the aging—to determine whether the receivables are collectible.

**Value-Added Service**

The accounts receivable aging is typically analyzed by job, not by invoice or customer. To help the surety perform its analysis, group the aging report by jobs and note which jobs are completed and which ones are still in progress. Retentions receivable should also be presented separately.

## MARKETABLE SECURITIES AND NOTES RECEIVABLE

The GAAP accounting and fair value disclosure requirements for marketable securities and notes receivable are important for answering many of the questions a surety will have about these items. The answer to some questions may not be so readily apparent, for example:

- How willing is the owner to convert marketable securities to cash? Just because a security is listed as available-for-sale does not necessarily mean the contractor is willing to sell it at any time. For example, will the contractor take a loss on a security sale to raise cash for the business?

- What transaction created the notes receivable? This information may be presented in the statement of cash flows or notes to the financial statements. The surety is interested in the transaction.

## OVERBILLINGS AND JOB BORROW

Overbillings will be analyzed on a job-by-job basis. Overbillings are usually better than underbillings, but too much of a good thing can be a problem. Recall Example 1-2: Job Borrow. That example illustrated how overbillings may create a situation where the contractor gets so far ahead in billing on a job, that it will have to use cash on hand to finish the project. Job borrow is calculated as follows:

Job Borrow = Overbillings - Total Estimated Gross Profit

In other words, if a contractor has billed $100,000 in excess of cost and estimated profit, and the total profit on the job is only $30,000, the contractor has, in effect, billed for $70,000 of cost it has yet to incur. The question is, when it comes time to pay for those costs, will the contractor have the cash on hand to do so?

A surety will analyze job borrow and compare that amount to the amount of cash on hand. Job borrow that is too high in relation to cash on hand is a red flag for most sureties.

## PROPERTY AND EQUIPMENT

A surety's primary concern is whether the contractor has enough equipment to perform the job it has been asked to bond. If the contractor does not currently have sufficient equipment, the surety will want to know what plans have been made to acquire the equipment.

Sureties are also concerned about contractors that have significant underused equipment.

Underused equipment may be impaired under FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of* (see Chapter 2). Auditors and financial statement preparers should perform procedures to ensure that all equipment is properly valued.

Finally, one issue that most auditors would not normally consider is whether the contractor's equipment represents a "hidden asset," i.e, is the fair value of the asset greater than its book value? Such a situation will work in the contractor's favor and may help increase the surety credit.

### EXAMPLE 3-2: IDLE EQUIPMENT

WannaBee Contractors is a small heavy construction contractor. Mr. Bee bids and wins a contract to excavate a foundation for a building in Alaska near the Arctic Circle. The excavation of tundra, digging through permafrost, requires a highly specialized piece of Arctic excavation equipment. Mr. Bee rents this equipment to perform the job.

The job turns out well, and at its conclusion Mr. Bee rationalizes, "We've already put a lot of money into this new equipment. For only another $30,000 we can own it. Why not?"

For some contractors, the decision to purchase equipment is primarily emotional, with little regard for economics. At best, Mr. Bee has taken $30,000 of profit from a successful job and bought a piece of equipment that he may or may not ever use again. At worst, he enters into a capital lease to buy the equipment. The current maturities under the capital lease become a current liability; the equipment is long-term. Working capital and liquidity are negatively impacted.

**Value-Added Service**

If your client has a significant amount of equipment on the balance sheet, the surety may be interested in knowing the fair value of the equipment. This information is not required to be disclosed in the financial statements, but may be provided in a separate report. The insured value of the equipment is a starting point for estimating its fair value, as this represents the contractor's estimate of what the equipment is worth. Third-party estimates are also available, for example, from an auction guide or equipment dealer.

Sureties are also interested in any land carried on the contractor's balance sheet. If that land is not used in operations, the surety may ask about the contractor's intentions. Is it being held as an investment? For future expansion? For development? The surety may also be interested in the fair value of the land.

## DEBT

The scheduled maturity of long-term debt (a GAAP-required disclosure) is important information for sureties because it helps them understand the future cash flow requirements of the contractor. They are particularly interested in the amount and timing of any balloon payments.

The surety is also interested in any subordinated debt arrangements the owner has made with the company. A situation often arises where a small contractor bids on a job that is beyond its current bonding capacity. One way to increase the bonding capacity is for the owner to inject working capital

into the company in the form of subordinated debt. A surety may be interested to know whether the owner has the willingness and ability to enter into that type of transaction.

### UNDERBILLINGS

The surety will normally analyze underbillings on a job-by-job basis. Significant or chronic underbillings is a red flag that will raise questions. If the underbillings are merely the result of the terms of the contract or timing (e.g., the preparation of the financial statements vs. the contractor's billing procedures), then the underbillings are easily explained.

Unless historical results support the validity, underbilling will generally be discounted, and, if in excess of 20% of equity, completely eliminated by the surety.

Difficulty arises when the underbillings are the result of disputes or unapproved change orders. In some cases, underbillings may represent unrecognized losses on a particular job.

### PROFITABILITY

The surety will analyze profitability on a job-by-job basis. Typically, it will separate the jobs into those that have been completed and those in progress. It will be interested in the consistency of profit margins between jobs and between completed and uncompleted work. It will also be interested in tracking a job's profitability over time. For example, if the job was originally projected to have a profit margin of 15%, is that how the job ended up? Jobs that indicate a significant "profit fade" (original estimate was for $200,000 profit and the job ended up at $125,000) are sure to raise questions. As a rule of thumb, any job that shows profit fade greater than 10% will probably be viewed negatively by the surety.

### STATEMENT OF CASH FLOWS

The statement of cash flows will help the surety understand the contractor's activities during the year, particularly those that are not portrayed in the income statement or balance sheet. For example, if the construction company borrows heavily from the owner during the year, then pays off the debt just before year-end, the only place that activity will be captured is in the statement of cash flows.

## MAXIMIZING SURETY CREDIT

The surety agent, the surety company, and the contractor share a similar goal: to maximize surety credit.

Surety credit is determined based on working capital and net worth. Typically, the maximum surety credit for an individual project is 10 times working capital. The maximum credit for a work program is usually 10 times net worth.

The starting point for determining the amount of surety credit is the working capital as presented in accordance with GAAP. From there, the surety will make certain adjustments to arrive at working capital for surety credit purposes. Those adjustments are summarized in Exhibit 3-3.

**Exhibit 3-3**
**Determining Working Capital for Surety Credit**

| | |
|---|---|
| CURRENT ASSETS | |
| Current Assets GAAP-basis | $ X,XXX |
| Subtract: | |
| Receivables from officers, employees, owners | (XXX) |
| 50% of inventory not at job site | (XXX) |
| Prepaid expenses | (XX) |
| Add: | |
| Cash surrender value of life insurance | XX |
| Current Assets Surety Credit Purposes | X,XXX |
| CURRENT LIABILITIES | |
| Current liabilities GAAP-basis | (X,XXX) |
| ADJUSTED WORKING CAPITAL FOR SURETY CREDIT | $ XXX |

- *Accounts and Notes Receivable From Officers, Employees, or Owners.* As a general rule, most sureties will eliminate these from working capital for the purposes of determining surety credit.

- *Notes Receivable.* These may or may not be included in working capital, depending on the creditworthiness of the payor. Sureties will evaluate these on a case-by-case basis. Job site material is usually cost, not inventories.

- *Inventory.* The surety will want to know why the contractor maintains inventory and how quickly it turns over, that is, how soon will it be costed to a job, billed, and converted to cash. As a general rule, 100% of materials on the job site are included in working capital for surety credit purposes but only 50% of other inventory is included.

- *Prepaid Expenses.* Usually not included for determining working capital for surety credit purposes.

- *Cash Value of Life Insurance.* For GAAP purposes this is not a current asset, but usually a surety will include it as working capital for its purposes. However, the surety may be interested in the creditworthiness of the insurance company.

- *Current Liabilities.* In most instances, current liabilities for GAAP purposes is used, unadjusted, for determining surety credit. Exceptions in rare circumstances include deferred income taxes and subordinated debt.

## SUMMARY

This chapter provided you with some more details of the surety underwriting process. The chapter started with an overview of the contractor/surety/owner relationship and the various types of surety bonds a contractor may be required to post. The rest of the chapter described how a surety or surety agent will analyze a contractor's financial statements to determine the amount of its surety credit. Any CPA who provides service to construction contractors should develop a good understanding of the relationship between contractor and surety and how the surety uses the contractor's financial statements to make decisions.

# CHAPTER 4

# APPLYING THE AUDIT RISK MODEL TO A CONSTRUCTION CONTRACTOR

## INTRODUCTION

Most auditors take a "balance sheet" approach to performing their audits. That is, they test the items on the balance sheet and perform analytical procedures for the income statement items. That approach works well for most engagements. It also works well for those aspects of a contractor that are similar to a commercial engagement, for example, cash, fixed assets, prepaids, accrued expenses, or long-term debt.

The balance sheet audit approach *does not work well* for that one area unique to construction contractors, the contract-related accounts.

This chapter introduces you to a model for auditing the contract-related accounts of a construction contractor. Essentially, that model is an application of three audit concepts you use on most other audit engagements: materiality, audit risk, and financial statement assertions.

**Reading Between the Lines**

The audit of a construction contractor is the audit of individual contracts.

## PRETEST

Before reading this chapter, consider what your working definitions are for the terms below. How are the three concepts related?

- Materiality.
- Audit risk.
- Financial statement assertions.

## A REVIEW: MATERIALITY, AUDIT RISK, AND FINANCIAL STATEMENT ASSERTIONS

Most auditors have a "feel" for the terms materiality, audit risk, and financial statement assertions and how they may be related. Our model for auditing a construction contractor is based on an in-depth understanding of these terms, and so the first half of this chapter consists of a review of what these terms mean and how they are related.

## MATERIALITY

There are no sure things in life, and there are no sure things in an audit. When you perform an audit you assume a certain amount of risk. The key to the efficiency and effectiveness of an audit lies in the management of this risk.

The literature (AU §312) defines audit risk as:

> The risk that the auditor may unknowingly fail to appropriately modify his or her opinion on financial statements that are materially misstated.

That is, the financial statements contain a material error, and you miss it.

Notice that the definition of audit risk is intertwined with the concept of materiality. This connection is reiterated in the standard audit report, which offers the opinion that "the financial statements present fairly *in all material respects*....in conformity with GAAP."

The courts made the first attempts to define materiality. The Tenth Circuit Court of Appeals said that information is material if "...the trading judgment of reasonable investors would not have been left untouched upon receipt of such information" [*Mitchell v. Texas Gulf Sulphur Co.*, 446 F2D 90, at 99-100 (Tenth Circuit, 1971)]. The Supreme Court later stated, "An omitted fact is material if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote" [*TSC Industries Inc. v. Northway Inc.*, (Sup. Ct. 6/14/76), CCH *Federal Securities Law Reports* ¶95,615].

Note that materiality is a judgment made from the investor/shareholder's point of view. This approach was adopted by the accounting profession. In FASB Concept Statement No. 2, *Qualitative Characteristics of Accounting Information*, materiality is defined as:

> The magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

Materiality is considered when evaluating audit results. A preliminary determination of materiality should also be made during the planning phase of an audit in order to design appropriate audit procedures. For example, determining how many accounts receivable confirmations to send or the scope of your search for unrecorded liabilities will be affected by your judgments about materiality.

Materiality judgments are primarily quantitative in nature, and most audit manuals will contain a computation worksheet to help you make a preliminary determination of materiality for planning purposes. If the circumstances warrant, you can choose a different level of materiality based on your judgment. For example, if you know the financial statements will be used to determine the purchase price of a company, you may want to lower your threshold of materiality. If you do change your materiality level, be sure to document your reasoning in the workpapers.

Materiality is not just a quantitative consideration—certain qualitative characteristics should be considered as well, for example:

- Does the item reverse the trend of a key item or ratio?
- Does the item put the enterprise in danger of being in breach of a covenant?
- If the item is nonrecurring in nature, it may need to be disclosed separately from normal recurring items. Amounts too small to warrant disclosure or correction in normal circumstances may be considered material if they arise from abnormal or unusual transactions or events.
- A misclassification of assets that would not be material in amount if it affected two categories of plant or equipment might be material if it changed the classification between a noncurrent and a current asset.

**Something to Think About**

Remember that materiality judgments are made from the *user's* point of view, that is, an item is material if it could change the decision of the financial statement user.

Chapter 3 introduced you to the surety underwriting process, in particular, some of the ratios and other information a surety uses to make decisions about a contractor. When making materiality judgments for audits of contractors, be sure to keep in mind the surety's perspective and how it is likely to use the financial statements. For example, you know that working capital ratios are important to a surety; therefore items that affect working capital should be at a lower threshold of materiality than items that do not affect working capital.

The degree of precision that is attainable in estimating an item should also be considered when making materiality judgments. For example, accounts payable usually can be estimated more accurately than a contingent liability. A $10,000 error may be material for accounts payable but not for something more difficult to estimate such as an environmental remediation liability.

*Tolerable misstatement* (or tolerable error) is essentially an allocation of materiality to the assertion level. For example, assume that planning materiality was calculated to be $150,000. If materiality was set at that level for every assertion (e.g., fixed assets, receivables, payables, etc.) you could possibly have two or three errors of $100,000 go undetected. In the aggregate, these items would be material. Therefore, overall materiality levels are "stepped down" to tolerable misstatement.

Most audit manuals also provide guidance on determining tolerable misstatement, for example, two-thirds of materiality. Again, this can be changed based on the auditor's judgment.

**Why It Matters**

Tolerable misstatement is not just an esoteric concept or an irrelevant number to put in the workpapers. Tolerable misstatement is an important measurement that is used throughout the audit. For example, tolerable misstatement is used to:

- Calculate sample sizes.
- Evaluate inherent risk by considering the risk that an error greater than or equal to tolerable misstatement exists in an assertion.
- Evaluate control risk by considering the risk that an error greater than or equal to tolerable misstatement will not be prevented or detected in a timely basis.
- Evaluate the strength of analytical procedures by considering how likely the procedures are to detect an error the size of tolerable misstatement.
- Evaluate the results of sampling.
- Help determine individually significant items when applying substantive tests of details.

## AUDIT RISK AND THE AUDIT RISK MODEL

For a material error to make it to the financial statements undetected, three things must happen in the following order:

1. A material error exists.
2. The client's internal controls fail to prevent or detect it.
3. The auditor's substantive procedures fail to detect it.

SAS No. 47, *Audit Risk and Materiality in Conducting an Audit* (AU §312), defines the three events as follows:

- *Inherent Risk.* The susceptibility of an assertion to a material misstatement, assuming that there are no related internal control procedures.
- *Control Risk.* The risk that a material misstatement will not be prevented or detected on a timely basis by the internal control structure policies or procedures. That risk is a function of the effectiveness of the design and operation of the internal control policies or procedures. Some control risk will always exist because of the inherent limitations of any internal control structure.

- *Detection Risk.* The risk that the auditor's substantive tests will fail to detect the error. Detection risk is a function of the effectiveness of an auditing procedure and of its application by the auditor.

The relationship between these components is expressed as follows:

Audit Risk = Inherent Risk x Control Risk x Detection Risk

There are two important relationships to remember about these components:

- A *linear* relationship. One component follows the other. Substantive procedures are considered *last*, only after the auditor assesses the other two risks.

- An *inverse* relationship. If inherent and control risk are low, then detection risk can rise, and overall audit risk remains constant. In other words, if the chances are small that an account is materially misstated, you can cut back on your substantive procedures. The opposite is also true. A high inherent and control risk assessment means that you need to gather more evidence from your substantive tests.

An *effective* audit is one that is thorough and identifies material misstatements. An *efficient* audit is one in which no unnecessary audit procedures are performed.

The key to designing effective and efficient audits is understanding the components of the audit risk model and how they are related. The model focuses audit attention on the riskiest audit areas, and substantive procedures are considered only after considering the risk of material error in a given account.

## FINANCIAL STATEMENT ASSERTIONS

Following is an example used to illustrate the concept of financial statement assertions.

Assume you are a lending officer who is considering making a loan to Precision Technologies Enterprises (a commercial client, not a contractor). Your decision will be based on its current ratio and ability to generate operating income. Assume you receive the following current financial statements, which are materially correct.

Precision Technologies

Balance Sheet

| | |
|---|---|
| Cash | $ 1,615,451 |
| Accounts receivable | 2,757,866 |
| Inventory | 2,904,442 |
| Other current assets | 121,111 |
| Total current assets | 7,398,870 |

*(continued)*

Precision Technologies *(continued)*

Balance Sheet

| | |
|---|---|
| Property, plant and equipment | 1,365,540 |
| Total assets | $ 8,764,410 |
| Accounts payable | $ 1,372,274 |
| Current portion of l-t-d | 373,716 |
| Total current liabilities | |
| Long-term debt | 3,000,216 |
| Stockholders' equity | 4,018,204 |
| Total liabilities and equity | $ 8,764,410 |

Income Statement

| | |
|---|---|
| Sales | $ 9,915,523 |
| Cost of sales | 3,145,513 |
| Gross profit | 6,770,010 |
| Selling, general & admininstration | 4,014,992 |
| Operating income | $ 2,755,018 |

Relying on the above financial statements (which are fairly presented in all material respects), would you feel comfortable making a loan to this company? Why or why not? (Hint: The decision really is as simple as it seems.)

The purpose of this example was to demonstrate the concept of financial statement assertions. You were given a set of financial statements and asked to make a lending decision based on the information provided. The lending decision was to be based on the current ratio and operating income. The decision should have been fairly easy. The company is very liquid and has enough cash on hand to nearly meet its current obligations. The company also enjoys a healthy operating profit.

Note how, when using these financial statements, you *took certain things for granted.* You assumed things about this financial information, and rightly so. For example, you assumed:

- That all the cash was available to pay off current obligations and was not being used as a compensating balance or under some other arrangement that would make it unavailable.

- That accounts receivable are properly valued at the amounts the company expects to actually receive and that inventory is properly valued at the lower of cost or net realizable value.

- That the company has reported all of its liabilities.

- That gross profit only includes sales in the normal course of business and does not include sales of fixed assets or other sales of non-inventory items.

- That the fixed assets actually exist.

You make the above assumptions without a second thought, because they are a "given," a prerequisite to your use of the financial statements. This is one way to look at what is meant by the term financial statement assertions — those things that users have every right to assume about the financial statements.

Financial statement assertions are defined by SAS No. 31, *Evidential Matter* (AU §326), as:

> Representations by management that are embodied in financial statement components.

As the example illustrated, you might also look at assertions as those things the user takes for granted. If the company reports cash on the balance sheet, then the user takes it for granted that the cash is available to pay off the company's obligations.

Assertions can be classified into the following broad categories:

- *Existence or occurrence.* Whether assets or liabilities of the entity exist at a given date and whether recorded transactions have occurred within a given period. For example, management asserts (and users assume) that inventories in the balance sheet are available for sale or that sales in the income statement represent the exchange of goods or services with customers.

- *Completeness.* Whether all transactions and accounts that should be presented in the financial statements are so included. For example, management asserts (and users assume) that accounts payable in the balance sheet include all such obligations of the company.

- *Rights and obligations.* Whether assets are the rights of the entity and liabilities are the obligations of the entity at a given date. For example, management asserts (and users assume) that amounts capitalized for leases in the balance sheet represent the cost of the entity's rights to leased property and that the corresponding lease liability represents an obligation of the entity.

- *Valuation or allocation.* Whether asset, liability, revenue, and expense components have been included in the financial statements at appropriate amounts. For example, management asserts (and users assume) that trade accounts receivable are stated at net realizable value.

- *Presentation and disclosure.* Whether particular components of the financial statements are properly classified, described, and disclosed. For example, management asserts (and users assume) that long-term liabilities will not mature within one year.

The audit risk model is applied at the assertion level. When we audit, we gather evidence to support each assertion.

### EXAMPLE 4-1: AUDITING AT THE ASSERTION LEVEL

Assume you are auditing accounts receivable. There are several assertions you would be concerned about:

- Existence: Do the receivables exist, and are they with bona fide customers?
- Completeness: Do the financial statements reflect *all* the entity's receivables?
- Rights: Does the entity have the right to receive the cash from the receivables?
- Valuation: Are the receivables properly valued, including any required valuation allowance?
- Presentation: Are receivables properly described in the financial statements (e.g., current or non-current) and are all necessary disclosures included?

As an auditor you apply the audit risk model and gather evidence to support each assertion.

For example, the confirmation of receivables would not be enough. The confirmation effort will gather evidence to support the existence assertion, somewhat less evidence to support the valuation assertion, and no evidence to support the completeness assertion. Additional procedures must be performed to gather evidence for these assertions.

It can work the other way, too. The positive confirmation of a receivable is strong evidence as to the existence of a receivable. It may not be worthwhile to vouch a confirmed receivable to a shipping document, since this test gathers evidence about the same assertion.

Financial statement assertions determine audit objectives, which in turn drive audit procedures. In the above example, the assertion was existence, and so the audit objective was to determine that all reported receivables exist with bona fide customers. Audit procedures are designed to provide evidence about specific objectives. For example, confirmations were used to support the existence assertion.

## APPLYING THE AUDIT RISK MODEL

For those of you who missed it the first time through, here it is again:

The audit of a contractor is essentially the audit of individual contracts.

This section builds a model for auditing the contract-related accounts of a construction contractor. This model is based on the three basic audit concepts reviewed in this chapter and on the contract equation introduced in Chapter 2.

Recall the basic contract equation introduced in Chapter 2:

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % = Gross Profit to Date**

This basic equation was expanded after considering that:

**Estimated Total Contract Price = Original Contract Price + Modifications**
and
**Estimated Total Contract Costs = Costs to Date + Estimated Costs to Complete**

Thus the key components of the model are:

- Original contract price.
- Modifications.
- Costs to date.
- Estimated costs to complete.

All other parts of the equation are derived from these four components. Note that the above model does not include the overbilling and underbilling accounts. These accounts are a function of the above formula and the amounts billed. Billed amounts are usually confirmed with the owner and are usually not difficult to audit.

The first step in the audit of a contractor involves breaking down the four key components of the model into their assertions and using these assertions to develop audit objectives. The matrix on the following page illustrates this concept.

Exhibit 4-1 on the following page would be applied to each material open contract. Some things to keep in mind:

- *Original Contract Price.* As pointed out in Chapter 1, there may be some complexities or nuances to the contract (for example, performance penalties or incentives) that would make it difficult to determine the original contract price. Combining and segmenting contracts will also affect the determination of contract price. Chapter 2 discussed the criteria for combining and segmenting contracts. Generally, the best way for an auditor to determine if the original contract price has been properly accounted for is to read the contract.

- *Modifications.* Recall from Chapter 2 that modifications typically include claims and change orders. They may also include contract options and additions. Chapter 2 and SOP 81-1 provide guidance on how these should be accounted for. The combined inherent and control risk assessment for contract modifications may be high if the contractor has a poor understanding of the accounting principles or weak internal controls.

*(text continued on page 87)*

Exhibit 4-1

Audit Objectives for a Contractor

| | Key Components of the Contract Equation | | | |
|---|---|---|---|---|
| Assertion | Original Contract Price | Modifications | Costs to Date | Estimated Costs to Complete |
| Existence | • If applicable, have contracts been properly segmented? | • Do all modifications included by the client meet the GAAP recognition criteria? | • Do all costs reported for this job represent capitalizable costs for this job and not some other job? | N/A |
| Completeness | • If applicable, have contracts been properly combined? | • Has the client recognized *all* modifications that meet the GAAP recognition criteria? | • Have all capitalizable costs associated with the job been allocated to the job? | • Have all elements of future cost been included in the estimate of costs to complete? |
| Valuation | • Has the contractor properly calculated the original contract price based on the terms of the contract ? | • Have modifications been measured in accordance with GAAP? | • Have job costs been measured at their proper amounts? | • Have estimated costs to complete been properly measured? |

- *Costs to Date.* This column represents the accumulation of all direct and indirect costs related to a particular job. The completeness assertion is concerned with making sure that all capitalizable costs associated with the job have in fact been allocated to that job. Think of what might go wrong. For example, have all indirect costs been allocated to jobs? Have all job-related payables and accruals been recorded? Note that certain procedures may overlap with other audit areas, such as a search for unrecorded liabilities or a review of selling, general and administrative expenses.

- *Estimated Costs to Complete.* Guidance on auditing accounting estimates is contained in SAS No. 57, *Auditing Accounting Estimates*, and will be discussed in more detail in Chapter 7. For the purposes of our model here, the emphasis for estimated costs to complete is usually on the completeness and valuation assertion: making sure the estimate includes all elements of future cost and that those elements have been properly measured.

Once the audit objectives have been determined, the next step is to apply the audit risk model *at the assertion level* for each component. Keep in mind that the audit risk model is essentially a two-step process.

In the first step, you perform procedures to help assess inherent and control risk. These assessments are made within the context of materiality. For example, you would perform procedures to help assess the risk that the client has recognized a *material* change order that does not meet the criteria of SOP 81-1.

Proceeding on that risk assessment you would then design your substantive audit procedures to gather evidence to support that assertion.

The next two chapters will provide you with guidance on making inherent and control risk assessments. Chapter 7 will discuss substantive procedures and link these procedures to specific assertions.

## SUMMARY

This chapter began with a working definition of key audit concepts: materiality, audit risk, and financial statement assertions. The key to an effective and efficient audit is to understand how these concepts interrelate. The audit process is one of gathering evidence by applying the audit risk model to each assertion.

The second half of the chapter showed how the basic auditing model can be applied to the audit of a construction contractor. Essentially, the model is applied to each of the key elements of the percentage-of-completion equation introduced in Chapter 2.

# CHAPTER 5

# AUDIT PLANNING AND PRELIMINARY ANALYTICAL PROCEDURES

## INTRODUCTION

The last chapter re-emphasized the notion that auditing is a risk-driven process; that is, audit procedures are designed to reduce overall audit risk to an acceptable level. One of the primary objectives of audit planning is to identify high-risk audit areas. From there you can plan your audit accordingly.

This chapter discusses planning from two perspectives. On an overall basis, some entities are riskier than others, simply based on the nature of their business. The first section of the chapter will help you identify high-risk construction contractors.

Second, as the previous chapter emphasized, the audit of a contractor is the audit of individual contracts. The second half of this chapter will help you identify high-risk contracts.

Analytical procedures are a key tool to help you identify risk. The discussion of analytical procedures is interwoven into the rest of the chapter. The procedures discussed in this chapter relate only to analytical procedures performed at the planning stages. Analytical procedures used as substantive tests are included in Chapter 7 and those used in the final review stages are included in Chapter 8.

## CONTRACTORS AND ESTIMATES

Recall the basic contract equation introduced in Chapter 2:

**(Estimated Total Contract Price - Estimated Total Contract Costs) x Completion % = Gross Profit to Date**

Before continuing on with this chapter, review Chapter 2 and consider the following:

> How do estimates affect the above equation? For example, total contract price may include a performance incentive based on the completion date of the project. That completion date is an estimate.

**Reading Between the Lines**

Estimating is a major part of a contractor's business. An audit of a contractor is an audit of a contractor's ability to estimate.

Ways in which estimates affect the basic contract equation include the following:

- *Estimated costs to complete.* One entire component of the equation is an estimate.
- *Contract penalties or incentives.* The recognition of penalties or incentives depends on whether the amount can be reasonably estimated.
- *Profit from change orders.* Profit on a change order can only be recognized if the amount can be reasonably estimated.
- *Revenue from a claim.* Revenue related to a claim can only be recognized if the amount can be reasonably estimated.
- *Allocation of equipment costs.* Equipment charges are generally allocated to individual jobs based on an internally developed use rate. That use rate is dependent on estimates such as the useful life of the equipment, average idle time, and operating costs.
- *Percentage complete.* The percentage complete of a project (assuming it is somewhere between 0% and 100% complete) will almost always be an estimate because the denominator (total costs, labor hours, units-of-delivery, etc.) is usually an estimate.

The purpose of this discussion was to point out that estimates can have a significant impact on a contractor's financial statements—more so than on other business entities. Because of the way the contract equation affects the financial statements (including the over- and under-billing accounts), the gross profit, net income, equity, and working capital of a contractor can all be based substantially on estimates.

## ASSESSING RISK AT THE OVERALL ENTITY LEVEL

Early in the audit planning process, you should develop an understanding of how important estimates are to the contractor's overall financial statements. Example 5-1 will show how two seemingly similar contractors actually have very different risk characteristics.

## EXAMPLE 5-1: EVALUATING OVERALL RISK

Assume two contractors, A and B. Summarized financial information for the two is as follows:

| | Contractor A | Contractor B |
|---|---|---|
| Job revenue | $ 10,000,000 | $ 10,000,000 |
| Job cost | 9,000,000 | 9,000,000 |
| Gross profit | 1,000,000 | 1,000,000 |
| General and Administrative | 500,000 | 500,000 |
| Earnings before taxes | 500,000 | 500,000 |
| Income taxes | 200,000 | 200,000 |
| Net income | $ 300,000 | $ 300,000 |
| Equity | $ 1,500,000 | $ 1,500,000 |

On the surface, these two contractors are exactly the same. But what if the components of earnings from construction were as follows:

| | Contractor A | | | Contractor B | | |
|---|---|---|---|---|---|---|
| | Completed | In Progress | Total | Completed | In Progress | Total |
| Job revenue | $9,500,000 | $500,000 | $10,000,000 | $500,000 | $9,500,000 | $10,000,000 |
| Job cost | 8,550,000 | 450,000 | 9,000,000 | 450,000 | 8,550,000 | 9,000,000 |
| Gross profit | $ 950,000 | $ 50,000 | $ 1,000,000 | $ 50,000 | $ 950,000 | $ 1,000,000 |

The total gross profit for each contractor is the same. The gross profit percentage is the same (10%) for both completed projects and those in progress. The difference is that 95% of contractor A's profit is from completed projects. The results are certain; they are not subject to the estimating process because the job is finished.

On the other hand, 95% of Contractor B's gross profits are from projects that are still in progress and therefore still at risk.

| | Contractor A | Contractor B |
|---|---|---|
| Profit from projects in progress | $ 50,000 | $ 950,000 |
| Total gross profit | $ 1,000,000 | $ 1,000,000 |
| Equity | $ 1,500,000 | $ 1,500,000 |
| Percentage of gross profit subject to an estimate | 5% | 95% |
| Percentage of equity subject to an estimate | 3% | 63% |

As this example shows, Contractor B would generally be considered to be the much riskier client, even though at first glance the two appeared to be similar. Contractor B's gross profit is "softer," less certain, subject to estimate and risk. Note also that this type of analytical procedure can be easily performed using amounts taken directly from the client's trial balance.

**Why It Matters**

The analysis used in Example 5-1 should be performed before you even accept the engagement. Contractors where estimates have a significant impact on the financial statements (such as Contractor B) will be more difficult to audit and will take more time. Your fee estimate should reflect this.

Overall engagement risk will also affect your staffing and supervision. On a higher risk engagement such as Contractor B, you should use your best most experienced staff. Plan on close supervision and a large number of partner hours.

This chapter began by asking you to list all the ways in which estimates can affect the basic contract equation. During the planning stage of the audit, you should make some preliminary inquiries of company management to find out the magnitude and relative importance of those items subject to estimate. For example, do the financial statements include significant unapproved change orders? Do any unfinished contracts have material penalties or incentives? In making the estimates, what were management's key assumptions or uncertainties?

As soon as possible—before accepting the engagement, if you can—try to get a feel for the contractor's estimating skills. In general, there are two distinct types of skills:

1. *Take off.* The take-off skill is the ability to accurately estimate the cost of a job from the plans and specifications. This skill can be analyzed by reviewing the consistency of gross profit rates realized during the life of a project, as well as the frequency of losses.

2. *Production.* The production skill is the ability to estimate the cost required to complete while the project is in progress. This skill can be analyzed by comparing the gross profit rate realized when the job is completed against that estimated when the job was in progress. It should also include a review of the number of loss jobs that were not recognized until they were completed.

**Reading Between the Lines**

You will have to obtain historical financial statements (in particular the contracts in progress and completed contract schedules) to analyze a contractor's estimating skills. Inquiries of outsiders familiar with the contractor, such as bankers or sureties, may also help you assess the contractor's estimating skills.

On initial engagements, be sure to make inquiries and gather the information needed from the predecessor accountant.

**Reading Between the Lines**

CPAs who service construction contractors on a regular basis typically maintain a data base that tracks the progress of all the contractor's recent jobs. This database can then be segregated by type of work, type of contract, location, owner, or project manager. This can further pinpoint a contractor's estimating skills or weaknesses.

Major swings in profits on individual jobs indicate a high audit risk, particularly where jobs experience "profit fade." A pervasive pattern of profit fade or late recognition of losses is a red flag you should watch out for.

Finally, the state of the overall economy may increase the overall engagement risk for a contractor.

## AUDIT PLANNING AT THE CONTRACT LEVEL

Keep in mind the key point made in the previous chapter: the major difference between auditing a contractor and other types of business entities is that for a contractor a "balance sheet approach" is not sufficient. For the contract-related accounts, you have to test the transactions; you have to audit the contracts.

When planning for the audit of a contractor, at some point you need to review the jobs and determine which jobs represent the higher risk.

A planning review of contracts in progress should be done in three stages. These stages act as a sieve or winnowing process. (See also the flowchart on page 100.)

### PHASE ONE

Take a quick look at the client's unadjusted contracts in progress schedule as of the balance sheet date. Focus on the percentage complete and total contract price jobs. Jobs that are either in the very early or very late stages of completion are typically lower-risk. Why? Think back to the illustration at the end of Chapter 2. Mistakes (for example in estimating costs to complete) are multiplied by the percentage complete. Thus, if the estimate of a 10% complete job is off by $100,000, the effect on gross profit is only $10,000.

True, errors on jobs that are almost complete will have a greater impact on gross profit. However, when a job is 90% or more complete, the contractor should be able to develop estimates within a fairly tight range.

Large jobs or those that fall between 25% and 90% complete may be high-risk, and these pass through the sieve to phase two.

**Why It Matters**

Think of your audit approach for accounts receivable on a commercial engagement. You typically divide the population into two groups: individually significant items and everything else. The individual items you positively confirm 100%. The "everything else" pool is further subdivided into higher- and lower-dollar items, and a sample is drawn, most of the items being from the high-dollar pool. Perhaps you confirm the "everything else" pool as of an interim date and roll forward to year-end. The individually significant accounts you confirm as of balance sheet date. Your valuation testwork is similarly modified to focus on high-dollar/high-risk accounts.

An audit of a pool of construction projects takes a similar approach. You want to segregate the population into high-risk and low-risk jobs. Your risk assessment will affect:

- The nature, timing, and extent of your audit procedures.
- The staffing on the engagement.
- Supervision and the amount of partner involvement.
- When the work is performed—i.e., do the high-risk areas first; don't save them until the end because no one likes surprises at the end of an audit.

## PHASE TWO

The preliminary review of the contract status report should identify potential high-risk jobs. Your next step is to sit down with the contractor and ask him about these jobs. In making your inquiries don't forget the information you've accumulated in your Job History database and on your knowledge of the client and the industry. Some general questions to ask:

- *Type of Project.* Try to get an understanding of the relative complexity of the job and whether it's within the contractor's expertise. Construction complexities will affect the risk assessment of a particular job, but you should also ask about architectural and engineering complexities. For example, a contractor may have significant experience building office buildings, but if a building makes extensive use of a new type of material, risk may be increased.

  Keep in mind that a contractor's "expertise" may be fairly narrowly defined. Be skeptical of the contractor who says, "I'm a roadbuilder, so I should be able to build a bridge. It's nothing but a road on stilts."

- *Timing and Scheduling.* Jobs that stretch out over a long time frame are generally riskier. Ask the client about jobs that are behind schedule or that are under an accelerated schedule with the owner pushing to get the work done. These are generally riskier, too.

- *Location.* Contractors may take on unforeseen risks when they perform jobs outside of their normal geographic area. Those risks are usually attributable to the contractor's unfamiliarity with the business conditions and practices of the local economy. The contractor may also take on the risk of mobilizing people and supplies to a remote area.

- *Weather.* Many construction projects are executed outdoors, and weather can have a significant impact on how the job is performed. For example, the severe weather conditions had to be taken into consideration when the Trans-Alaska pipeline was built. Unusual weather conditions can also cause delays or loss.

- *Owners.* The contractor's relationship and past experience with the owner can have an impact on the risk of a particular project. You should also try to obtain a general understanding of the owner's financial position. Working with owners who are experiencing financial difficulty can make a job riskier, for example, in getting paid on time.

- *Subcontractors.* Try to obtain an understanding of the extent to which your client uses subcontractors. Remember that your client will almost always be responsible to the owner for any failure of the subcontractor to deliver the work he has contracted to perform. Your client may also be responsible for any unpaid labor or material bills. Your client's past experience with a subcontractor and the subcontractor's financial position should be evaluated.

- *Bid Spread.* Bid spread is the difference between the winning bid and the next lowest bid. A large bid spread between your client and the next lowest bidder may indicate your client failed to consider a significant cost or was otherwise unrealistically optimistic when bidding the job.

Proceeding on your discussions with management, you may further refine your breakdown of lower- and higher-risk projects. The high-risk projects pass on to phase three of the evaluation.

## PHASE THREE

For the projects that make it to this phase of the planning process, you will need to obtain a little more detailed information. You can get this through inquiry of the project manager or someone else who is thoroughly familiar with the project. You might also want to perform more detailed procedures, such as reading the contract or analyzing interim financial information. Some things to look for:

- *Profit Fade.* Review interim financial information for the project for signs of profit fade. This is usually a sign that something on the job did not proceed according to plan.

- *Underbilling.* Chronic underbilling may indicate the client has a control problem in the billing area. Significant underbilling on a particular job may indicate an unrecognized loss.

- *Type of Contract.* As discussed in previous chapters, cost-type contracts are generally less risky than fixed-price contracts. However, it may sometimes be difficult to determine the reimbursable expenses on cost-type contracts, and this should be considered when evaluating risk.

- *Claims.* The presence or absence of significant claims related to a project will affect the risk associated with that project.

### EXAMPLE 5-2: CHANGE IN LOCATION

Mainland Builders is a general contractor that specializes in building hotels. They were contracted to build Da Kine Resort on a remote spot of the island of Kauai, Hawaii. Mainland Builders encountered significant problems mobilizing their equipment to the job site. They had to be shipped first to San Francisco, then Honolulu, and finally on to Kauai. Delays and unexpected fees were encountered at each port.

Once on the job site, the equipment developed rust and other problems related to the salty air and high humidity. Breakdowns and delays were more frequent than the company normally encountered on its mainland projects.

Partway through construction, the builders discovered an ancient Hawaiian heiau (altar) and burial site close to the resort project. The local workers immediately walked off the job and refused to work any longer. After a long delay a kahuna (priest) was brought to bless the site, and the workers returned to the job.

After the delay was finally resolved, the project manager shook his head and said, "Dorothy, we're not in Kansas any more."

### EXAMPLE 5-3: UNDERBILLING HIDES AN UNRECOGNIZED LOSS

Halfway through a job, the management of Acme Builders realizes the scope of a project is larger than it originally planned, and the project will go over budget. Costs continue to accumulate on the project, but the progress billings are prepared as originally agreed to, with no increase for additional costs.

The result is that Acme will build up a substantial underbilling for this job. The cause of this underbilling is that costs are greater than expected. Management (and the auditor) should consider whether the increase in costs will eventually be billed and collected from the client. If not, any loss should be recognized immediately.

Exhibit 5-1 summarizes this three-phase approach to assessing risk at the contract level during the planning phase of the audit.

**Exhibit 5-1**
**Assessing Risk of Individual Contracts**
**Table of Risk Factors**

| Factor | Lower Risk | Higher Risk |
|---|---|---|
| **Phase One: Review Schedule of Uncompleted Jobs** | | |
| Percent complete | • 0% - 25%<br>• > 90% | • 25% - 90% |
| Size of project | • Relatively small job | • Relatively large job |
| **Phase Two: Make Inquiries of Management** | | |
| Type of project | • Simple, routine<br>• Within contractor's expertise | • Complex, one of a kind<br>• Not within contractor's expertise |
| Timing and scheduling | • Short-term project<br>• Work is on schedule<br>• Comfortable time frame<br>• No penalties for late completion | • Long-term project<br>• Work is falling behind schedule<br>• Accelerated time frame<br>• Significant penalties for late completion |
| Location | • Established area with past successful projects<br>• Materials and labor readily available | • New area<br>• Remote area — materials and labor not readily available |
| Weather | • Low susceptibility to adverse weather | • High susceptibility to adverse weather |
| Owner/investor | • Significant previous contact<br>• Solid financial position | • Little previous contact<br>• Weak financial position |

**Exhibit 5-1 — cont'd.**

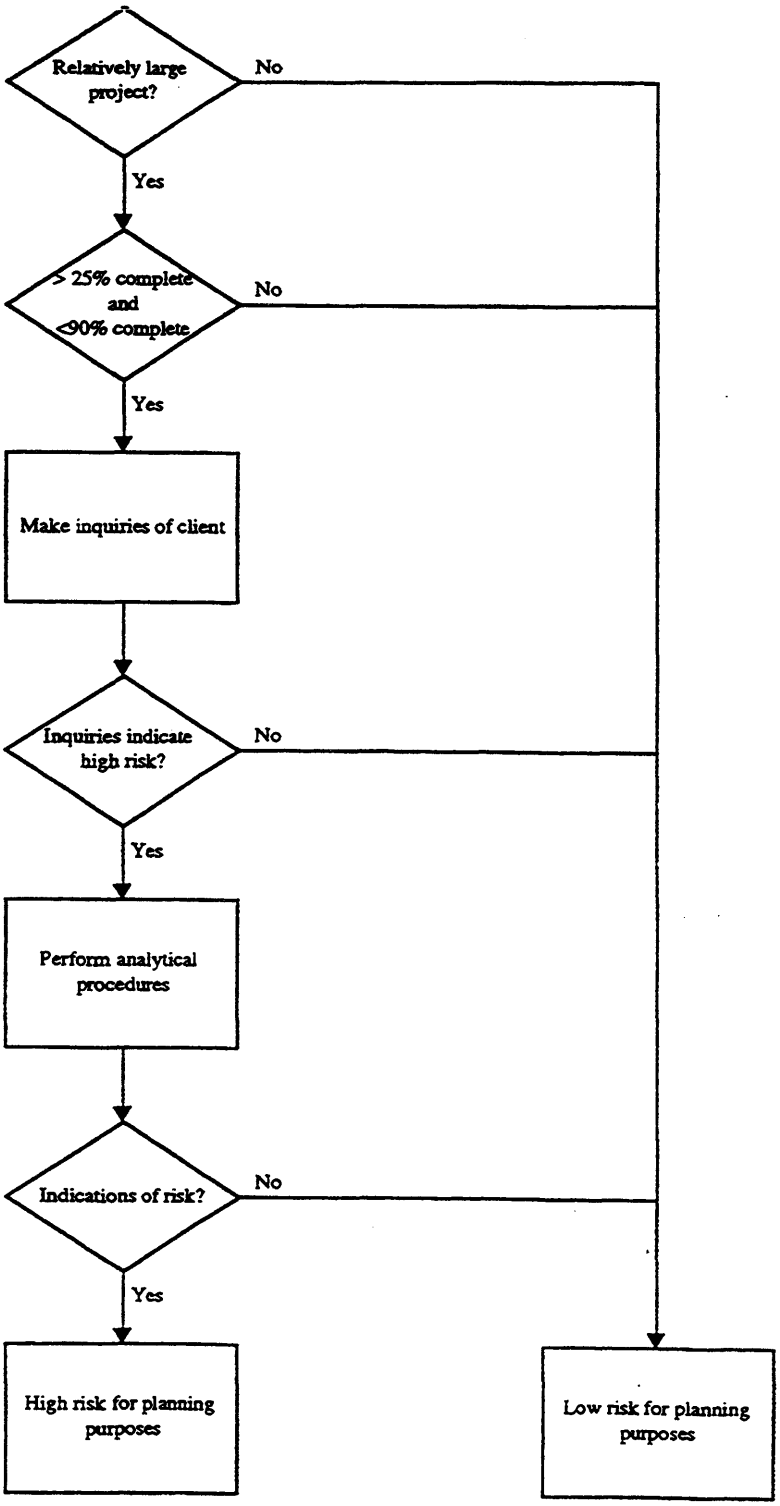
| Factor | Lower Risk | Higher Risk |
|---|---|---|
| Subcontractors | • Large portion of work performed by subcontractors<br>• Significant previous contact<br>• Solid financial position<br>• Significant subcontract agreements finalized | • Small portion of work performed by subcontractors<br>• Little previous contact<br>• Weak financial position<br>• Significant subcontract agreements not finalized |
| Bid spread | • Tight bid results | • Significant variances in bid amounts |
| **Phase Three: Obtain Detailed Information** | | |
| Profit fade | • No significant profit fade | • Significant profit fade |
| Underbilling | • Normal/nominal underbilling | • Unusual/significant underbilling |
| Type of contract | • Cost-type, clear definition of reimbursable costs | • Fixed-price<br>• Cost-type, difficult to determine reimbursable costs |
| Claims | • No claims | • Significant claims |

## SUMMARY

Audit planning is performed at two general levels. First, you should assess risk at the overall entity level. Understand the contractor's estimating process and how significant estimates are to the financial statements. Many CPA firms maintain a database of their contractor's job history, which allows them to track their contractor's estimating experiences over time.

On a second level, you should assess risk at the individual contract level. This chapter provided you with a methodology and a list of factors to consider when making that assessment. The flowchart on the following page summarizes this methodology.

## IDENTIFYING HIGH RISK CONTRACTS



# CHAPTER 6

# INTERNAL CONTROL CONSIDERATIONS

## INTRODUCTION

Auditors are required to gain an understanding of the internal control structure on every audit engagement. That understanding should be sufficient to plan the audit and it should cover all three elements of the control structure: the control environment, the accounting system, and the control procedures.

As an auditor you are probably familiar with the GAAS requirements that you "do something" with internal controls. The most important question is why? Why do you gain an understanding of internal controls? (The answer "because we did it last year" is not sufficient.)

Your firm probably uses an audit manual that undoubtedly contains a number of forms, checklists, and programs designed to document your understanding of the client's internal control structure. You might even supplement these forms with flowcharts, memos or walkthroughs. It's important for you and your staff to understand that filling out these forms is not just a documentation exercise. These forms should be filled out thoughtfully because the information gathered is relevant and useful for the rest of the audit.

Understanding the internal control structure is gained during the planning phase of the audit for the following three reasons:

1. *Identify Types of Potential Misstatements.* As an auditor, you should have an understanding of what kinds of errors can occur. Unless you know what kinds of errors can happen, you won't know what to look for. For example, in gaining your understanding of a contractor's control structure, you may discover that cut-off of accounts payable is poorly controlled. Poor cut-off of accounts payable may mean that accumulated job costs are incomplete.

2. *Consider Factors That Affect the Risk of Material Misstatement.* An understanding of the contractor's internal control structure will highlight those areas that are most likely to be wrong. For example, if the contractor documents or controls change orders poorly, you'll want to focus a little more attention on those areas during your audit.

3. *Design Substantive Tests.* The understanding of the internal control structure will let you know what documents you should be looking for and where in the accounting process the errors are most likely to occur.

The overall reason for gaining an understanding of the internal control structure is to make the audit more efficient by focusing time on the areas that are most likely to be wrong.

In this chapter we focus on those elements of the internal control structure that are unique to construction contractors.

## THE CONTROL ENVIRONMENT

The control environment reflects the overall attitude, awareness, and action of management and others concerning the importance of control and its emphasis in the entity. Many auditors consider the control environment to be the most important of the three elements of the internal control structure. Unless management is committed to maintaining a good control environment, the other two elements are moot.

General audit manuals and the professional literature (in particular AU section 319) provide broad guidance on assessing the control environment. The following are some considerations that are unique for construction contractors:

**Reading Between the Lines**

Ask yourself these four common sense questions about the contractor's management:

1. How closely does management monitor the financial results of its jobs? Of the entity as a whole?
2. How quickly does management notice that a job is in trouble?
3. Does it follow up when a job is in trouble?
4. What is its general business philosophy? Conservative? Aggressive?

- *Working capital.* As stated in Chapter 1, working capital is a contractor's greatest financing need. Working capital should be adequate for the work program of the contractor. Inadequate working capital may jeopardize the completion of the jobs in progress. It may also affect the bondability of future work. Remember the illustration of job borrow from Chapter 1. *Be alert* for excessive job borrow. This is like borrowing from Mastercard to pay the Visa bill.

- *Management philosophy regarding volume.* One of the primary themes introduced earlier is that construction is a *project*-oriented and not a *process*-oriented business. Most successful contractors are margin-oriented. Beware of the contractors who attempt to cover overhead and make a profit based on volume. An overemphasis on volume will cause the contractor to stray into areas (either type of project or geographic area) in which they have no expertise. This is a risky strategy.

- *Management's philosophy concerning prosecution of claims.* A contractor has to strike a balance between pursuing amounts to which it is entitled and maintaining working relationships with owners. Undisciplined and misguided efforts at recovering claims may indicate a weak control environment.

- *Employee retention.* Skilled and experienced employees, in particular project managers, are important for the success of most contractors. Low turnover in key positions is usually a sign of a strong control environment.

- *Management's attitude toward job management.* Strong control environments are usually characterized by formal job schedules and methods for communicating important information such as job status. Management should be committed to strong supervision and training and to maintaining good working relationships with unions. Contractors who dismiss their job management responsibilities or who are unaware of them create a poor control environment.

  It is critical that management realizes the importance of periodic comparison of actual costs to budgets (bid costs). An environment should exist that encourages monthly review by project managers and, as a result, regular adjustments to estimated costs to complete.

- *Relationships with bankers, sureties, subcontractors, and owners.* Successful contractors generally have a strong working relationship with those who are vital to the success of the project. One of the key elements in working with bankers and sureties is providing timely, accurate, and fair financial reports. Contractors who treat sureties or bankers as adversaries or who try to hide or disguise unfavorable financial information are creating a poor control environment.

The control environment should be evaluated annually. Changes in personnel or changes in business conditions can significantly alter the control environment.

## EXAMPLE 6-1: CHANGE IN THE CONTROL ENVIRONMENT

Short-Sighted Builders was an electrical subcontractor in Longmont, Colorado. The company was owned by three brothers, Jim, Gene, and Ken. The three brothers all lived and worked in the small town of Longmont, and though their accounting systems were informal, the company was well-managed. They had the help of a well-qualified CPA who was experienced in the industry (and had the billing rates to prove it).

Gene and Jim landed a job in Las Vegas and moved out there "temporarily" to manage the project. One job turned into another, then another. Gene and Jim set up more permanent headquarters in Las Vegas. Meanwhile, Ken managed the work back home.

In this case, the brothers managed their venture into a different geographic region rather well from a profitability standpoint. What changed was the relationship between the three owners/brothers.

The jobs in Las Vegas were bigger and, well, more glamorous. Gene and Jim were alone together and began to talk about how to "really manage" the company. They began to take control of the management of the company and there was nothing Ken could do.

In this example, the personnel was the same, the new business was successful, but the change in the working relationship between management team members altered the control environment.

In this case, Gene and Jim focused less on job management and control and more on selling new work. They thought it would be a good idea to cut overhead, so they fired their full-time controller and hired a temporary bookkeeper. They also replaced their CPA with someone cheaper (and less qualified).

They thought their actions would increase profitability, but what they really did was lose control of the business. Day-to-day management of individual jobs deteriorated, and projects went over budget. They lost all the construction accounting expertise from their back office. The quality of their financial statements suffered dramatically, which affected their credibility with the sureties.

## ACCOUNTING SYSTEM AND CONTROL PROCEDURES

On most small business engagements, the typical practitioner doesn't do a lot of work on the accounting system and internal control procedures. That's because many small businesses can get by with only a bare minimum of controls, for example, reconciling the bank account or making sure the billing goes out on time.

In general, this relaxed attitude toward accounting systems and control procedures *will not work for a contractor*. Some of the more important things about a contractor's business include:

- Percentage-of-completion is relatively complex.
- The financial statements of a contractor can be based largely on estimates.
- Progress billings need to be properly managed to provide cash flow.
- Contractors need sureties and sureties rely on accurate financial information.

Because of the factors listed above, a contractor cannot manage the business simply by reconciling the bank. Generally, the need for dependable accounting systems is greater for a contractor than it is for other businesses of similar size.

**Reading Between the Lines**

You may do a "shoebox" audit or two where the client gives you what accounting records and documentation it has and leaves it up to you to straighten things out. That might work for some entities, but stay away from these kinds of engagements for a construction firm. The contractor who operates out of a "shoebox" is not long for the business world.

A contractor must have dependable accounting systems in the following areas:

- Bidding and estimating.
- Job-site accounting and controls.
- Billing.
- Contract costs.
- Contract revenues.

In reviewing these key control areas, keep in mind the basic contract equation. Assessments of accounting systems and control procedures should be made within the context of how they affect the financial statements and whether that effect can be material. For example, if the contractor does a poor job of controlling contract costs, how will that ultimately affect gross profit?

Exhibit 6-1 on the following page summarizes the key control areas and how they affect the components of the basic contract equation.

**Exhibit 6-1**

**Control Areas and Their Impact on the Financial Statements**

| | Contract Equation Components | | | | |
|---|---|---|---|---|---|
| Control Area | Orig. Contract Amount | Modifications | Costs To Date | Est. Costs To Complete | Billing |
| Bidding and estimating | | | | | |
| Job-site accounting and controls | | | | | |
| Billing | | | | | |
| Contract costs | | | | | |
| Contract revenues | | | | | |

## BIDDING AND ESTIMATING

**Reading Between the Lines**

Here are two common sense questions to ask about your client's control over the bidding and estimating process:

1. Does management get all the information it needs to make timely estimates of cost to complete?
2. Can management identify the key assumptions and uncertainties related to its estimate?

Chapter 4 drew the distinction between "take-off" estimating and "production" estimating. "Take-off" estimating is the ability to estimate costs from a set of plans. This is the skill used to prepare the bid. Some basic controls in the bidding process:

- The bid should be complete and include all elements of cost.
- Costs are generally broken down into quantities and prices.
- Prices should be based on reliable sources and should include any estimated wage and price escalations during the term of the contract.

Escalations should not be blanket overall provisions (say, 5% for the whole job) but should be broken down into labor, material, and indirect costs.

The bid serves as the basis for the original project budget. Keep in mind that as the project progresses, actual costs incurred will be compared to the original budget. Therefore, it's important for the client to have an integrated budgeting and cost system. All the categories of cost used in the budget should carry forward to the cost system.

Here is what the AICPA Audit and Accounting Guide *Construction Contractors* has to say about a contractor's estimating process:

> [The contractor's] ability to estimate covers more than the estimating 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.

Communication is one of the key elements of a contractor's estimating process. Those people who are familiar with the progress of the project in the field need to make periodic estimates of cost to complete and communicate this information to those who prepare the financial information. It's similar to managing an audit — you can't really be sure of how long it will take to finish unless you talk to the senior.

Many construction firms have a formalized communication process that requires periodic (for example, once a quarter) estimates from the field. Some contractors use a purchase order system for purchasing materials. The comparison of open purchase orders and other open commitments will help to produce accurate estimates.

**Reading Between the Lines**

Project managers will play an important role in controlling and reporting job-site costs. They will also gather and communicate information necessary to estimate costs to complete. Both of these activities should be organized according to the cost categories prepared on the original budget. Therefore, it is often a good idea to involve the project managers in the review of the final budget—it should reflect the way they plan to manage the project.

Paragraph 8.07 of the Guide lists some of the control procedures you might find over the estimation process, for example, checking materials prices against published price lists. The overall message: the numbers that go into making an estimate must have integrity; garbage in, garbage out.

For the smaller contractor, the most important control may be that management takes an active interest in and cares about the estimates. As a CPA, you should impress on your contractor clients that no one is helped by overly optimistic estimates. Estimates that are not credible will damage the contractor's relationship with the sureties and other financial statement users.

## JOB-SITE ACCOUNTING AND CONTROLS

One of the unique features of the contractor's business is that it's a decentralized operation: the work is performed at a site other than the contractor's business headquarters. This affects the accounting system

and related control procedures. Out of necessity, much of the accounting system will reside at the job site.

One of the issues you should consider is how a decentralized system affects accounting control. Some factors to consider:

- *Financial records.* The people in the central office are usually better trained in accounting. Also, central control of recordkeeping will ensure consistency in the way things are done. Records from the job site may be inconsistent from job to job, and they may be prepared with a lack of understanding about accounting, for example, the nature of accruals.

  On the other hand, the people in the field are closer to the facts. They are more likely to get prompt, accurate information, whereas the records in the accounting office may be somewhat stale. For example, the people on the job may be aware of an invoice that should be accrued, but the head office may not know about it until the bill arrives several weeks later.

**Reading Between the Lines**

Here are three common sense questions to ask about your client's control at the job site:

1. Does the contractor know what it bought, the cost, and whether it got what it bought?
2. Does the contractor know what it did with the things it bought, including small tools and equipment?
3. Does the contractor know the cost of work performed under change orders or other contract modifications, and is there a system in place that allows for the prompt billing for these items?

- *Cost control.* It is usually better to maintain cost control records at the central office because that helps ensure the consistency of the reporting. However, certain information, such as coding costs to the proper line item, are usually performed at the job site, and these must be communicated to the central office in a timely manner.

  Cost reports are an important part of job management. They help the project manager assess the progress of the job and estimate the costs to complete. Because of this, it is incumbent on the central office to get the completed reports into the hands of the project manager on a timely basis.

- *Overhead control.* Perhaps you've seen this question arise in your CPA firm. At what point should an overhead function, for example, the preparation of financial statements, be centralized? Should you have a separate report department that does all financial statements, or is it more efficient for each audit team to produce the financial statements off their own PCs?

Centralized overhead allows for more specialization and better supervision. It is usually cheaper than having decentralized overhead and helps with quality control. Also, centralized overhead allows for a more objective view of job-site overhead. If overhead needs to be cut, you do it in one place and are spared numerous "turf battles."

Having used the CPA firm report department as an example, you may also be aware of situations where it is difficult to get the financial statements for *your clients* (the most important ones) on a timely basis. In certain situations, it may be possible to have some decentralization of overhead without creating inefficiencies or sacrificing quality.

A main objective of job-site management is the timely identification of projects that are in trouble. This is the only way management can make adjustments and devote necessary resources to the project.

For smaller jobs, only a limited amount of accounting will be performed at the job site, for example, timekeeping and the receipt of materials. On other jobs, the issue of decentralization will be more complicated. At a minimum, job-site accounting and control usually involve the following:

- Maintaining control and documenting change orders, back charges, claims, and other similar items.
- Keeping time records.
- Reviewing invoices and making sure the items billed were used on that job.
- Reviewing job cost reports.
- Gathering and communicating information necessary to estimate costs to complete.
- Gathering and communicating information necessary for billing.
- Maintaining physical control over equipment, materials, and supplies.

It is usually difficult to establish an internal control structure at a job site because these offices are temporary in nature and usually staffed with people who have minimal accounting training. When assessing a contractor's accounting system and controls, make sure you have a good understanding of what is performed at the job site and what is done at the central office.

The project manager is usually the one responsible for job accounting and controls. For more on the nature of project managers, see "What's a Project Manager Really Like?" which is included as an appendix to this chapter. As the appendix points out, the job-site accounting systems must be easy for the project managers to use.

Finally, refer back to Exhibit 1-3 on page 9. The type of contract may influence the design of the job-site accounting and control system. Different types of contracts have different requirements and areas of need.

**Value-Added Service Opportunities**

The communication link between the job site and the main office is important. Both sides need access to accurate and timely information.

Laptop computers and modems are becoming a common way for contractors to establish communication between the main office and the job sites. Advances in hardware and communications software have made this a cost-effective option for even the relatively small contractor. Also, as personal computers have become ubiquitous, more and more project managers possess the computer skills necessary to make this kind of communication possible.

Be alert for these types of opportunities for your clients.

## BILLING

Remember that billing procedures for a contractor are usually not correlated to performance. Billing practices vary among contractors and may even vary among projects for the same contractor.

The accounting system in this area should emphasize the following:

- *Knowledge of the terms of the contract.* The people in charge of the billing need to be thoroughly familiar with the terms of the contract. Those who negotiated the contract or who are otherwise familiar with its details need to communicate those details to those responsible for billing. Billing procedures should be designed to recognize unique features of the contract.
- *Knowledge of the status of the job.* The people in charge of billing need to receive accurate and timely information from the job site. For example, billings may be based on various measures of performance, such as cubic yards excavated. This type of information must be provided from the field.

Another billing practice that is unique to contractors is retentions. The contractor's billing system should have a means for monitoring and properly billing retentions.

**Reading Between the Lines**

Here are two common sense questions to ask about your client's control over the billing process:

1. Does the contractor have the information needed to prepare and send progress billings promptly and accurately?
2. Do the contractor's records provide complete support for the progress billings?

## CONTRACT COSTS

The job cost system is important for two reasons:

1. *A record of the past.* The accumulation of job cost is necessary for the preparation of the financial statements.

2. *A predictor of the future.* Contract costs should be compared to project budgets to understand how the project is progressing. This comparison is an important step in estimating the costs to complete. For this reason, it is important that the job cost system produce accurate information on a timely basis.

**Reading Between the Lines**

Here are four common sense questions to ask about your client's control over job costs:

1. Does the contractor's system allow for the coding of costs to the proper job the first time through?

2. Is the cost system integrated with the bidding/budgeting and estimating system?

3. Does the contractor's system for buying, receiving, and paying for costs ensure that the contractor can take all discounts, pay bills promptly and accurately, and avoid duplication and overpayment?

4. Does the system properly allocate indirect costs?

There are many "off-the-shelf" contractor accounting software packages that include a job cost system. But keep in mind that it's not enough for the contractor to simply purchase the package. Some control procedures must be in place. Here are a few controls that even the small contractor should not do without:

- *Materials.* The contractor should review materials costs charged to the job and determine whether they are supported by vendors' invoices and, if applicable, purchase orders. There should also be some control to ensure that materials paid for have been received.

- *Labor.* The contractor should review labor charged to contracts and determine whether they are supported by proper documentation such as time sheets. There should be controls in place to ensure that employees are paid in accordance with union rules and any special terms described in the contract.

- *Subcontracts.* The contractor should review subcontractor charges to be sure they are in accordance with the terms specified in the subcontract agreements. The contractor should also be sure to inspect performance, guarantees, and similar bonds provided by the subcontractors.

- *Allocable costs.* The contractor should review equipment charges to be sure the rates agree with the contractor's standard rates. There should be a process that accumulates and properly allocates indirect costs to the jobs.

Finally, a contractor's job cost system should be fully integrated with the general ledger system, including accounts payable.

Some contractors maintain "bootleg" job cost systems that are separate from the general ledger, for example, a spreadsheet-based system. The general ledger is then updated via journal entries. This type of arrangement is fraught with problems. Oftentimes, the job cost system is updated but not the general ledger. Or an adjustment is recorded in each system and effectively booked twice. Be alert for these kinds of situations.

## CONTRACT REVENUE

Chapter 2 described some of the features of a contract that may affect the determination contract price. These may include: penalties, incentives, or the definition of reimbursable costs for cost-type contracts. The contractor needs to be thoroughly familiar with these provisions.

Based on their judgment, contractors will measure the contract price. That judgment will be based on certain assumptions or uncertainties, for example, the contractor may assume that good weather will hold out and that it will finish the project on time to earn the incentive payment. The contractor should identify these assumptions, and as the auditor you should understand them too. Some of these assumptions may be influenced by information from the job site. Again, it's important that management receive timely and accurate information from the field.

Change orders, claims, and back charges are a problem for many contractors. Often the work is performed under oral agreement, or the cost of the work is poorly documented and not segregated from the other contract costs.

Try to break your contractors of this habit. Poorly documented and unapproved change orders run the risk of not getting paid. The system for documenting change orders should be simple, for example, a standardized form or log. Be alert for situations where the contractor has committed to pay a subcontractor for work on a change order, but the contractor itself has not received a similar commitment from the owner. This is a high-risk situation.

**Reading Between the Lines**

Here are three common sense questions to ask about your client's control over contract revenues:

1. Is the contractor thoroughly familiar with the terms of the contract that affect the determination of the contract amount, for example, penalties and incentives?

2. What are the contractor's significant assumptions and uncertainties regarding these items?

3. Does the contractor know how much was spent on change orders, claims, and similar items? Does it document and promptly bill for these items?

## SUMMARY

Many small business owners can get by with a simple system of internal controls, for example, a simple accounting package, good billing procedures, and reconciling the bank. A contractor cannot. The complexities of percentage-of-completion accounting, the unique contractor billing methods, and decentralized operations mean that a contractor must pay more attention to the internal control structure than the average small business owner.

This chapter discussed internal control considerations unique to contractors, beginning with those that affect the control environment. The accounting and control systems were covered for five key areas. It's important to understand how these areas affect the financial statements. Exhibit 6-1 on page 105 provides this link between the control systems and the key components of the contract equation we've used throughout the book.

# CHAPTER 7

# SUBSTANTIVE AUDITING PROCEDURES

## INTRODUCTION

As an auditor you've probably had the experience in which you started to review a workpaper and it soon became apparent that the person doing the work really didn't know what he or she was doing. Perhaps they blindly followed last year's workpapers, and as a result certain audit areas were overlooked while others were beaten to death.

Sound vaguely familiar?

It's easy to follow a canned audit program or the guidance in the Audit and Accounting Guide. But to really do a good audit, you have to understand not only *what* you're doing but *why*. This chapter will focus on why.

## CONTRACTOR'S AUDIT MODEL REDUX

Chapter 4 reviewed the audit risk model and adapted it to the audit of a construction contractor. The basic concept is that a contractor is audited at the contract level, and an auditor applies the audit risk model to the key components of the basic contract equation. The five key components are:

1. Original contract price.
2. Modifications.
3. Cost to date.
4. Estimated costs to complete.
5. Billings.

This chapter discusses substantive procedures that are unique to contractors. When you perform these procedures, you need to be aware of which of the key components of a contract you're testing. For example, if you decide to perform a job-site visit for a particular job, you need to know which components of the equation you're testing and how your observations affect the financial statements.

The relationship between substantive auditing procedures and the key components of a contract are listed in Exhibit 7-1 on the next page.

Keep in mind that determining the nature, timing, and extent of substantive procedures is a function of the risk of a material misstatement. For example, you are not required to read all of the contractor's contracts. But if the risk of materially misstating the original contract amount for a given contract is higher than acceptable, you would want to read that contract.

**Exhibit 7-1**

**Control Areas and Their Impact on the Financial Statements**

| | Contract Equation Components | | | | |
|---|---|---|---|---|---|
| Substantive Procedure | Orig. Contract Amount | Modifications | Costs To Date | Est. Costs To Complete | Billing |
| Read the contract | ✓ | | | | |
| Confirmation with owner | ✓ | ✓ | | | ✓ |
| Review unapproved change orders | | ✓ | | | |
| Test cost accumulation | | | ✓ | ✓ | |
| Review estimated cost to complete | | | | ✓ | |
| Job-site visits | | | | ✓ | |

## READ THE CONTRACT

**Tips for Audit Efficiencies**

You do not have to wait until year-end to read contracts. Read them a couple of months before year-end. Focus on the high-risk contracts that will most likely still be in progress at balance sheet date.

Reading contracts at an interim date will help you plan the audit and distribute some chargeable hours to a slower time of the year. It will also give you contact with your client outside of the normal audit and tax season.

A contractor is audited at the contract level; an audit of a contractor is an audit of individual contracts. Therefore, most auditors read the contracts for the higher risk projects. Some things to look for when you're reading a contract:

- *Guarantees.* Many contracts provide for contract guarantees, for example, that the completed power plant will generate a specified number of kilowatt hours. For some contracts, retentions and their ultimate realization are related to the fulfillment of these guarantees. Make sure the contractor has given adequate consideration to the cost of fulfilling any guarantees.

- *Penalties and incentives.* Previous chapters have commented on the penalty and incentive clauses that are written into most contracts. When reading the contract be sure to note how the amount of the penalties and incentives will be calculated and the event that triggers their recognition.

- *Cancellation and postponement provisions.* Some contracts contain provisions that describe the terms and various rights of the contractor in the event the owner cancels or postpones the project. The most important thing for the auditor is to understand the contractor's right and ability to recover costs and damages if the contract is canceled or postponed.

If a contract is postponed, you should check to make sure the estimated costs to complete include any increases in cost that may be caused by the delay.

## CONFIRMATION WITH OWNER

**Tips for Audit Efficiencies**

Be familiar with the contract before you prepare the confirmation. Understand how the Original Contract Price was determined and how the Billings ties in to the contractor's general ledger.

Address the confirmation to someone who is willing and able to confirm the information requested.

The confirmation you send to the owner will ask for information about a number of items, including:

- Original contract price.

- Total approved change orders.

- Total billings and payments.

- Retainage held and whether it accrues interest.

- Details of any claims, back charges, or disputes.

- Estimated completion date or estimated percentage complete.

There are two types of confirmations you can prepare. (You can see a sample on page 59 of the AICPA Audit and Accounting Guide *Construction Contractors*.) You can fill in the amounts and ask the owner to just check them to be sure they're accurate. Or you can leave the amounts blank and ask the owner to fill them in. There are pros and cons to both methods. Fill in the amounts, and you run the risk that the owner does the most expedient thing: signs and returns the confirmation without thoroughly checking the information. Leave the amounts blank and the owner may decide it's too time-consuming and not respond to the confirmation.

The contractor may include incentives or penalties in the Original Contract Amount column of its schedule of uncompleted contracts. It's usually best to segregate these amounts when preparing the confirmation.

Keep in mind that the owner is likely to confirm only the *approved* change orders and other contract modification. Most of the audit risk is related to *unapproved* change orders and modifications. Auditing procedures for unapproved change orders will be discussed later in this chapter.

Many times the auditor asks the owner to confirm the estimated completion date or the estimated percentage complete of the project. Don't expect these estimates to match exactly with the contractor's estimates. With your confirmation, you're only looking to identify significant differences or problems. If the cost-to-cost estimate of percentage complete is 85% but the owner says the job is only half done, then that's a red flag. The job may be significantly overbudget and may even be in a loss position.

When confirming billings and payments, many auditors separate retentions from unpaid progress billings. Retentions are usually not collected until the job is completed and may be subject to restrictive conditions such as fulfillment guarantees.

Remember that confirmations do not address all assertions equally well. The confirmation of billings and payments provides a great deal of evidence about the existence assertion but very little about valuation. In other words, the owner can acknowledge the existence of unpaid bills, but the confirmation says nothing about whether it has the ability and intent to pay those bills.

As with other engagements, you will need to do additional work to gather evidence about the collectibility of the receivables. With a contractor it's important to consider not just the amount the customer owes at the balance sheet date, but the amount of the contract price yet to be billed. Remember, the owner is on the hook for the entire contract amount, not just what's outstanding at any one point in time.

To evaluate collectibility you may need to review the financial statements or other indicators of the owner's financial ability to pay. In some situations it may be appropriate to make such inquiries even though there may be no apparent indication that the receivable currently on the contractor's balance sheet might not be collectible.

## REVIEW UNAPPROVED CHANGE ORDERS

**Tips for Audit Efficiencies**

Identify significant unapproved change orders early in the audit. Impress upon the client the need for owner approval or other documentation to support the recognition of revenue related to change orders.

If you address the issue early in the audit, you give the client time to obtain approval or gather the necessary evidence. Nobody likes an eleventh-hour surprise.

Chapter 2 discussed the accounting for change orders, claims, and other similar contract modifications. Essentially, the costs of such items should be recognized during the period in which they are incurred but any related revenues can only be recognized if they are probable of collection and the amount can be reasonably estimated.

Unapproved change orders are difficult to audit because of the lack of evidence to support the probability of collection and the estimate's reasonableness. It is the client's responsibility to supply sufficient documentation. If there is no evidence to support the recognition of revenue on an unapproved change order or claim, then it should *not* be recognized.

Testing for unapproved change orders involves gathering evidence to support both the cost and any related revenue.

Procedures used to audit unapproved change orders and claims include:

- Vouch accumulated costs to underlying invoices, time records, and other supporting documentation. In some circumstances you may wish to confirm amounts paid to subcontractors.

- Evaluate 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 fixed-price contract, no basis for additional contract revenues may exist, and the costs may not be recoverable.

- Evaluate the nature and reasonableness of claimed damages that are attributable to customer-caused delays, error in specifications that caused incorrect bids, or various other reasons. You may need to obtain an opinion from the contractor's legal counsel regarding: (1) the contractor's legal right to file such a claim against the owner and (2) the contractor's likelihood of success in pursuing the claim.

- Consider the likelihood of the contractor pursuing and collecting on a claim. A claim may be properly supported but, if the contractor doesn't pursue it, it will never be collected. For example, a contractor may be less likely to press for collection of a claim from a major customer.

- Consider the contractor's past success in negotiating and settling similar types of claims.

Scope changes on contracts, particularly cost-plus contracts, are often not well-documented. Large cost-plus contracts frequently evolve through numerous starts and stops by both the contractor and the owner. As a result, the final scope of the contract is not always clearly defined. For cost-plus contracts, you should carefully consider which costs are reimbursable and which are not.

## TEST COST ACCUMULATION

**Tips for Audit Efficiencies**

The test of cost accumulation may be performed at an interim date as a way to shift some chargeable hours out of the tax and audit season.

At year-end, coordinate the test of cost accumulation with the search for unrecorded liabilities.

Audit tests are ultimately related to audit assertions. Testing the existence and valuation assertion of the costs to date is usually accomplished by vouching the accumulated costs to the supporting documentation.

This is one area of the audit that usually lends itself to sampling. When using sampling, it's important that the sample be representative of the population. This involves considering all of the contractor's projects, both completed and uncompleted. It also involves considering all of the different types of costs within those contracts. Samples that consider only materials and not labor, or direct costs and not indirect costs, are not representative samples.

Your tests of costs to date should also gather evidence to support the completeness assertion. There are two primary tests for this:

1. *Review unapplied indirect charges.* You should review unapplied indirect charges, including equipment charges. The proper accounting for indirect charges was discussed in Chapter 2. Also be alert for costs the contractor has described as general and administrative when in fact they were job costs. Such a misclassification will affect the gross margin on jobs, which may be material to a financial statement user.

2. *Audit of contract-related liabilities.* You should audit liabilities for a contractor in the same way you audit liabilities for other business entities. Your primary concerns are completeness (usually tested through a search for unrecorded liabilities) and cut-off.

When auditing a contractor's liabilities there are a few things you should keep in mind that may be different from other clients:

- You may wish to confirm the terms and status of subcontracts with subcontractors.
- When auditing subcontractor payments be alert for indications of claims and extras that may be billed by the subcontractor. Also look for signs of back charges.
- Older invoices and retentions may indicate defective work, failure on performance guarantees, or other contingencies that the contractor has not properly considered.
- Make note of any commitments or contingencies for future costs. Make sure these have been properly considered by the client in estimating costs to complete.

## REVIEW ESTIMATED COST TO COMPLETE

**Tips for Audit Efficiencies**

Look to post-balance-sheet date events or transactions to provide evidence about the balance-sheet-date estimate. If the contractor's year-end is December 31, and you do the audit work at the end of February, nearly two months of activity will have taken place on the jobs that were in progress at year-end. This activity may confirm or refute the assumptions used by management to prepare their year-end estimates.

Many auditors ask their contractors to provide updated estimates at the start of field work. If these are not prepared as a normal course of the contractor's business, be sure to make your request several weeks in advance of when you need them.

The authoritative guidance on auditing accounting estimates is provided by SAS No. 57 (AU section 342).

Accounting estimates are based on key factors and assumptions. For example, the price of materials may be a key factor, and the contractor may assume that prices will not rise significantly during the course of the job. When auditing the estimated cost to complete, you should focus on those key factors and assumptions that are:

- Significant to the estimate.
- Sensitive to variation.
- Deviations from historical patterns.
- Subjective and susceptible to misstatement or bias.

SAS No. 57 describes the approaches an auditor may take to evaluate the reasonableness of an estimate. When auditing a contractor's estimate of costs to complete, you should use one or a combination of the following approaches:

- Review and test the process used by management to develop the estimate.
- Develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate.
- Review subsequent events or transactions occurring before completion of field work.

As a practical matter, most auditors use a combination of the three approaches, with an emphasis on the first and third approaches.

**Reading Between the Lines**

Even if you are planning a primarily substantive audit approach and plan to assess control risk at or slightly below the maximum, you still should gain an understanding of a contractor's estimating process. This understanding will help you gather evidence to support estimates of the cost to complete.

Here are some of the procedures you might perform to apply the general guidance contained in the SAS to the audit of a contractor:

- *Understand internal control structure.* Focus on the areas that can affect the estimate of costs to complete: the estimating and bidding process, job-site accounting and control, and contract costs, including the costs of change orders, extras, and back charges.
- *Be aware of contractor's history.* Does the contractor have a history of making accurate estimates? Consider maintaining a job history database for your contractor clients, as described in Chapter 5.
- *Compare actual to budget.* Take the sum of accumulated costs to date plus estimated costs to complete by budget line item. Compare this sum to the original bid and budget. Compare allocation rates for equipment, payroll overhead, etc., used by estimates with actual rates. Review items with front-end loading and significant bid spreads. Investigate any unusual variances.
- *Review subsequent estimates, events, and transactions.* You should review the post-balance-sheet revised or updated estimates of cost to complete. Compare the balance-sheet-date estimates with the actual costs incurred after the balance sheet date.

**Reading Between the Lines**

Chapter 2 discussed the issue of whether to use post-balance-sheet estimates in the preparation of the financial statements. For example, the estimated total gross profit at the balance sheet date was $10 million. Two months later the estimate was $9.5 million.

As a practical matter, most auditors insist the contractor use the $9.5 million. This approach preserves the credibility of the financial statements in the eyes of the users.

- *Compare assumptions to terms of contract.* Make sure estimated costs to complete take into consideration penalties for termination or late completion, warranties or contract guarantees, and related items. Also check for the inclusion of actual or expected quantity or price increases.

- *Discussion with personnel.* Make inquiries of those who are familiar with or responsible for the project. Obtain any written reports they might prepare on the status of the job, including those prepared before the balance sheet date. Look for significant revisions or other indications of problems on the job.

- *Look for disputes and contingencies.* Disputes and contingencies may have an impact on the estimated costs to complete. Review confirmation responses, boards of directors' minutes and responses from attorneys for evidence of these items. Make sure they have been properly considered in the estimate of costs to complete.

## JOB-SITE VISITS

**Tips for Audit Efficiencies**

The persons performing the job-site visit should be familiar with the contractor and the project. They should also understand the objective of their visit. Send them to the job with an audit program.

A job-site visit is similar to an inventory observation in that it is a dual purpose procedure: it gathers information about the internal control structure and it also gathers substantive audit evidence.

### EXAMPLE 7-1: JOB-SITE VISIT

Acme Mudders is a plaster and drywall subcontractor. One of their jobs is the Big Condo Project, which is a 20-story building. During the job-site visit, Amanda Auditor discovers there have been problems on the job.

One group of workers did a poor job of taping on floors 1-5 and as a result the work had to be redone. "Show me," says Amanda, and the project manager takes her to floor 5. Half of the floor has been retaped, and the other half contains the original, sub-par work. On comparison, it is obvious to Amanda that the original work is of poor quality.

"Have you fixed the problem?" asks Amanda. The project manager assures her that the workers have been properly trained and instructed and that Acme does not plan to re-do any more work.

Acme has just finished floors 6 through 10. Amanda should take a tour of those floors to see if any of the work is obviously deficient or whether it supports the project manager's assumption.

Paragraph 10.02 of the Guide lists the following three objectives of a job-site visit:

1. To gain an understanding of the contractor's method of operations.

2. To obtain an understanding of those elements of the internal control structure maintained at the job sites.

3. To obtain information relating to job status and problems (if any) that may be useful in other phases of the audit.

The third objective makes reference to "other phases of the audit." Usually, those other phases have to do with the audit of estimated costs to complete.

The contractor's estimate of costs to complete is based on certain assumptions and uncertainties about how the job will be completed. During the job-site visit, the auditor should take note of existing conditions that either confirm or are contrary to the assumptions made by management to develop its estimated costs to complete.

The primary procedures performed during a job-site visit involve discussions with project managers, supervisors, and other individuals regarding the status of the project and any significant problems. In addition, the auditor should observe:

- *Any uninstalled materials.* Remember from Chapter 3 that it makes a difference to the surety whether inventory is general supplies and materials or specific materials located at the job site. While performing a job-site visit, the auditor should observe job-site inventory if the amounts are material.

- *Work performed to date.* In some circumstances it may be relatively easy for the auditor to observe the work performed to date, for example, painting four floors of an eight-story building. That information is useful in assessing the reasonableness of management's estimate of costs to complete.

- *Contractor-owned or rented equipment.* Equipment is charged to projects based on hours of use. The auditor's observation of equipment at a job site is strong evidence to support the validity of the charge.

## SUMMARY

This chapter discussed the substantive audit procedures that are unique to construction contractors. The primary objective of the chapter was to explain *why* certain procedures are performed. As emphasized throughout this auditing section, the audit of a contractor is the audit of individual contracts.

The basic model we've used throughout this section is one that's based on the basic contract equation. As an auditor, you must gather evidence to support the assertions for each key component of the equation. This chapter explained key substantive audit procedures and illustrated how these fit into this overall model.

# CHAPTER 8

# OTHER AUDITING CONSIDERATIONS

## INTRODUCTION

So far, this book has focused exclusively on the audit of construction contracts because this is usually the highest-risk audit area. However, there are other audit areas that may have unique considerations for construction contractors. This chapter will discuss those areas.

## CONSIDERING FRAUD IN A FINANCIAL STATEMENT AUDIT

As an auditor, you have a responsibility to obtain reasonable assurance about whether the financial statements are free of material misstatement. The auditing standards make it clear that your responsibility extends to *all* material misstatements, whether caused by error or fraud.

However, your responsibilities for detecting fraud are constrained by two factors, *materiality* and *reasonable assurance.*

### MATERIALITY

Your responsibilities relating to fraud are considered within the context of financial statement materiality. You are not responsible for detecting fraud *per se*, but rather, for detecting any *material* misstatements caused by fraud. You are *not* responsible for detecting *im*material misstatements caused by fraud.

### REASONABLE ASSURANCE

The auditing standards make it clear that you can get only reasonable assurance that the financial statements are free of material misstatements caused by fraud. This is a high threshold, but it is not absolute assurance.

In 1997 the Auditing Standards Board issued SAS No. 82, *Consideration of Fraud in a Financial Statement Audit.*[1] SAS No. 82 was written to "re-sensitize" you to the possibility of fraud and to help

[1] Concurrently with the issuance of the SAS, the AICPA published a nonauthoritative practice aid, *Considering Fraud in a Financial Statement Audit: Practical Guidance for Applying SAS No. 82.* For additional information on implementing the SAS, you may wish to refer to this publication, which can be ordered from the AICPA (product code 008883). Additionally, a self-study course on implementing the SAS can also be ordered from the AICPA.

you detect material misstatements caused by fraud. The primary objective of the standard was to provide you with specific guidance on what is required for you to fulfill your responsibilities for detecting material misstatements caused by fraud.

## OVERVIEW OF SAS NO. 82

SAS No. 82 categorizes frauds into two basic types, *fraudulent financial reporting* and *misappropriation of assets.*

### Fraudulent Financial Reporting

This occurs when management "cooks the books." As defined in the SAS, these misstatements arise from "intentional misstatements or omissions of amounts or disclosures in the financial statements to deceive financial statement users." Fraudulent financial reporting may include:

- Manipulation, falsification, or alteration of accounting records or supporting documents from which financial statements are prepared.
- Misrepresentation in, or intentional omission from, the financial statements of events, transactions, or other significant information.
- Intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosure.

For example, if a contractor deliberately failed to record a legitimate payable, that would be a form of fraudulent financial reporting.

### Misappropriation of Assets

More commonly referred to as the theft of company assets, this usually involves employees. Misappropriation can be accomplished in various ways, including embezzlement, stealing assets, or causing an entity to pay for goods or services not received. Misappropriation of assets may be covered up by false or misleading supporting documents or by collusion among employees or employees and third parties outside the entity.

SAS No. 82 provides *operational guidance* in that it describes what you should do in order to meet your responsibilities relating to material misstatements due to fraud. Under the statement, you are required to do the following:

- *Consider the presence of fraud risk factors.* Certain factors (for example, a lack of segregation of duties) often have been observed in circumstances where frauds have occurred. As auditors, you and your staff should become familiar with these risk factors and be alert for their presence at your audit clients. SAS No. 82 provides examples of risk factors you may consider.

**Why It Matters**

SAS No. 82 is based on a "where there's smoke, there's fire" concept — the fire being the fraud, and the concept being that auditors should be trained to look for the "smoke." The auditing standard itself provides examples of what to look for (i.e., the "smoke"), which the statement refers to as "fraud risk factors."

The characteristics of fraudulent financial reporting — and the related fraud risk factors — are different from those related to misappropriation of assets. Audit approaches and procedures also will be different, depending on the type of fraud involved. For these reasons, the two types of fraud should be considered separately.

- *Assess the risk of material misstatement of the financial statements due to fraud.* When fraud risk factors are present, SAS No. 82 requires you to make an assessment as to the risk of material misstatement due to fraud. This is a separate and distinct risk assessment, removed from other risk assessments (control and inherent risk) you make during the audit.

- *Develop a response.* SAS No. 82 requires you to develop an appropriate audit response based on your assessment of risk. In some circumstances, you may decide that your existing audit procedures are sufficient to obtain reasonable assurance that the financial statements are free of material misstatements due to fraud. In other circumstances, you may decide to extend your planned audit procedures.

- *Document certain items in the workpapers.* SAS No. 82 describes the workpaper documentation requirements relating to your consideration of fraud.

- *Communicate to management.* SAS No. 82 provides guidance on your communication about fraud to management, the audit committee (if applicable) and others, including those outside the entity.

Exhibit 8-1 summarizes the process described in SAS No. 82.

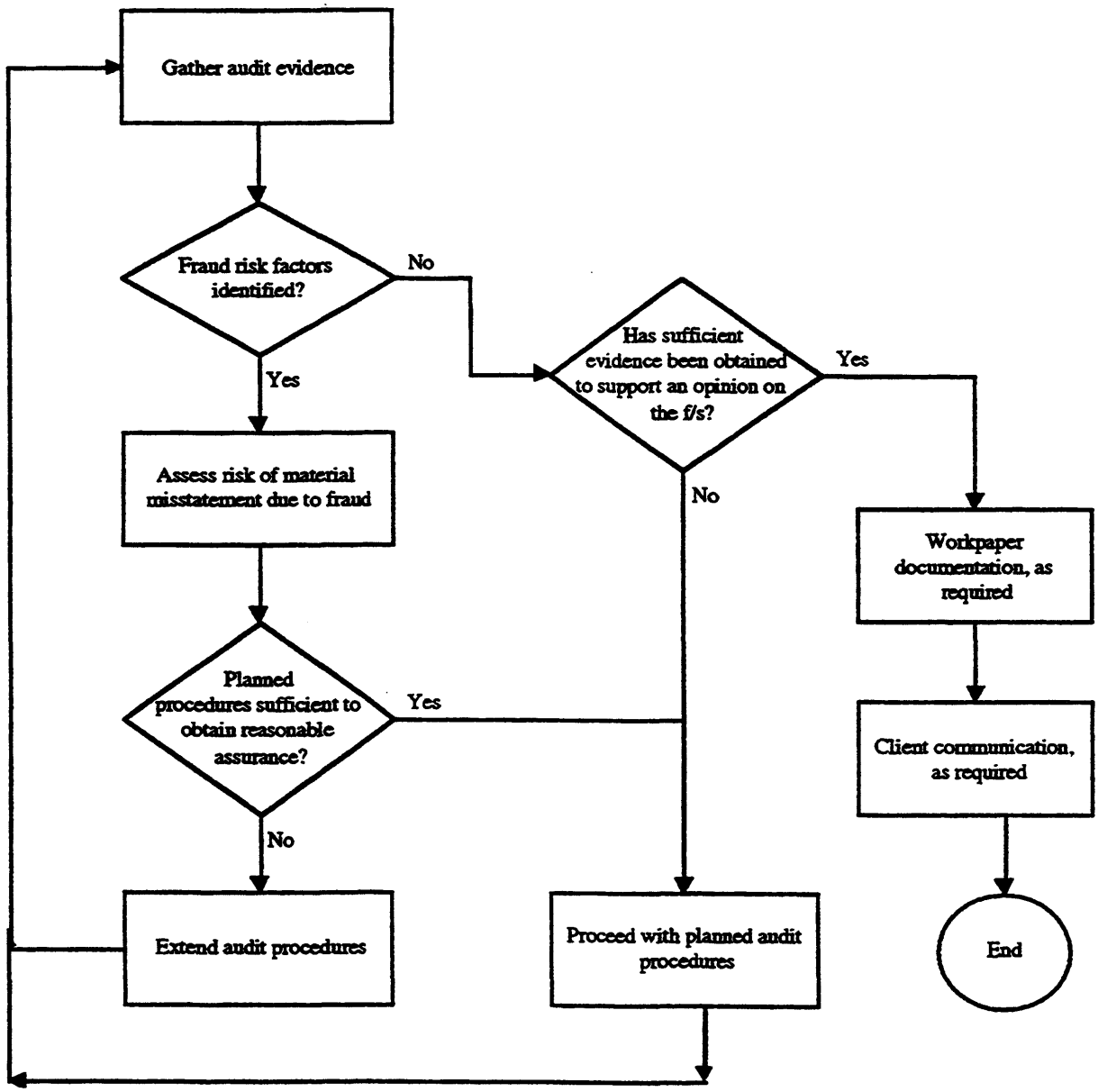
- The process labeled "Gather audit evidence" is performed at all steps of the audit process. It includes audit planning, the performance of audit procedures, and the evaluation of audit results. Audit evidence (including fraud risk factors) may even be gathered during the client acceptance process.

- The question "Fraud risk factors identified?" includes "other conditions" noted during the performance of audit procedures (as that term is used in paragraph 25 of SAS No. 82).

- The question relating to sufficient evidence to form an opinion on the financial statements essentially asks, "Have you completed the audit?" If so, SAS No. 82 requires you to document certain procedures in the workpapers and to make specified communications with client management.

**Exhibit 8-1**

**SAS No. 82 Process**



## APPLYING SAS NO. 82 TO THE AUDIT OF A CONSTRUCTION CONTRACTOR

SAS No. 82 provides a list of "fraud risk factors"—conditions that often have been observed in circumstances when a fraud has been committed. It's important that you become thoroughly familiar with these risk factors and be on the lookout for them during the course of your audit. The presence of fraud risk factors may indicate that a fraud has been or is being committed.

Keep in mind that the example fraud risk factors listed in paragraphs 17 and 19 of the SAS are only examples and may be modified to fit the circumstances of your particular client. When modifying these examples for the audit of a construction contractor, consider the following:

### Small Business Auditing

Most construction contractors are small privately owned businesses with fraud risk factors that are different from those in large publicly owned enterprises. Auditors of small companies usually are more concerned with frauds relating to misappropriation of assets rather than fraudulent financial reporting.

When identifying audit risks relating to misappropriation of assets, be alert for weak internal controls that provide fraudsters with the potential to perpetrate and conceal frauds. In a contractor, the areas most vulnerable to employee theft are cash, purchasing (receiving kickbacks from suppliers), and payroll (ghost employees).

If you are concerned about possible fraudulent financial reporting, be alert for situations that may provide management with a motivation to "cook the books." For example, a contractor that is performing only marginally may be tempted to misstate earnings or assets to deceive the bonding company or the bank. Remember that a contractor's financial statements depend heavily on management estimates such as costs to complete projects in process and to recover claims and change orders. These estimates are the most vulnerable to intentional misstatement if management is interested in deceiving financial statement users.

### Lack of Internal Controls

Owners and managers of small construction contractors frequently are entrepreneurs who are more likely to give priority to the field activities of the business (that is, the actual construction) rather than to accounting systems and internal control activities. As a result, internal control accounting and financial reporting functions may receive less support and attention than might be warranted. As stated above, internal control weaknesses may provide an opportunity for employee theft.

### EXAMPLE 8-1

Fred was the bookkeeper/controller of a small ($4 million) electrical contractor. The two owners of the business were usually out in the field, working and supervising jobs. To streamline office procedures and make sure bills got paid when they weren't around, they gave Fred the authority to sign checks that were for less than $5,000. He also was responsible for reconciling the bank statements.

Fred had an evil twin who got in trouble with a bookie. To help his brother, Fred looked to borrow $3,000 from his employers, but he was too embarrassed about his situation to explain it to the owners, so he simply made out the check to himself, signed it, and posted the debit to "employee advances." Later, when he realized that the owners had no idea what he'd done, he reclassified the entry to miscellaneous job costs.

This was how Fred learned to steal from the company. At first it was $1,000 to $2,000 every couple of months, with the rationale that someday he would pay it all back. Gradually, he began writing checks to himself every two weeks with no intention of ever paying it back. Over a three-year period, he stole more than $200,000.

In the above example, there were no controls to prevent the fraud from occurring. There was no segregation of duties—Fred had ample opportunity to both perpetrate and conceal the fraud. Additionally, there was no oversight or other control exercised by the owners over their employee.

### Safeguard Controls

Construction supplies and small tools are highly susceptible to theft. Contractors should have procedures in place to make sure that job sites are secure and the physical access to easily stolen items is controlled. Auditors should make inquiries and observe safeguard policies and procedures during job-site visits. Any weaknesses noted should be subject to a management letter comment.

## WORKER'S COMPENSATION INSURANCE

Worker's compensation insurance can be an important part of a contractor's business. The bookkeeping for this type of insurance can be troublesome for less sophisticated clients or those with a poor accounting staff. The consequences for failing to properly account for insurance accruals can be severe, so this is one area you may need to focus on.

The premiums for worker's compensation are based on payroll. Labor dollars are multiplied by a rate to determine the total premium. At the beginning of the policy term, labor dollars by type of worker are estimated, and premiums are paid during the policy term based on this estimate of labor dollars. After the policy expires, the insurance company performs an "audit' of payroll to determine the true premium. Adjustments are made based on this "audit" and the contractor either receives a check from the insurance company or must pay additional amounts.

**Value-Added Service Opportunities**

If you identify weaknesses in internal controls during the course of your audit, suggest control policy "fixes" that will help prevent fraud. "Sell" these recommendations to your client as fraud prevention measures and not just some esoteric accounting policy. Some recommendations to try:

*Have bank statements sent directly to the owner-manager.* The most common control weakness in a small contractor is a lack of segregation of duties, and one of the areas most vulnerable to theft is cash. If your contractor has one employee who can sign checks and who also reconciles the bank statements, recommend that your client receive all bank statements unopened, directly from the bank before the bank accounts are reconciled. This will make it impossible for people like Fred to make checks out to themselves without getting caught.

*Enforce mandatory vacations.* Perpetuating and concealing a fraud are high-maintenance activities, which is why many frauds are discovered when the fraudster is not around to cover his or her tracks. If someone in a position to commit a fraud knows he or she will have to turn over duties to someone else for at least two weeks a year, the increased risk of getting caught may serve as a successful deterrent.

*Include "right-to-audit" clauses with major suppliers.* One of the more common frauds in a contractor (and one of the more difficult to detect) are kickback schemes where the person responsible for approving purchases receives a gratuity from favored suppliers. "Right-to- audit" clauses can be included in contracts with suppliers or printed on the back of all purchase orders. Under a right-to-audit clause, the contractor reserves the right to audit the supplier's books at any time. Suppliers who know their records are subject to examination generally are reluctant to make kickback payments.

*Establish a code of conduct.* Even small businesses should have a written code of conduct that clearly spells out appropriate and inappropriate behavior. For example, the company should describe acceptable and unacceptable uses of company assets and set limits on the amount and type of gifts employees can receive from suppliers. If the company adopts policies relating to the relationship between employees and third parties such as vendors, those policies should be circulated to the third parties.

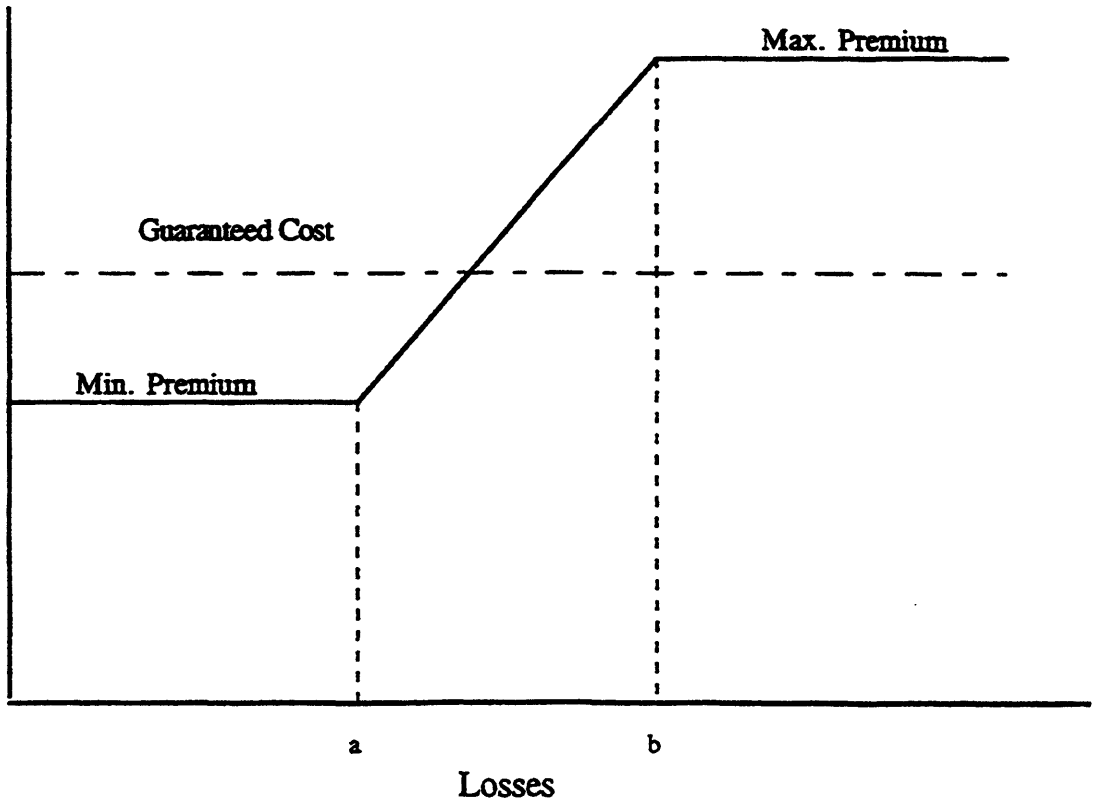
Bookkeeping problems arise when:

- Insurance policy years do not coincide with the contractor's year-end. This is usually the case.
- Several policies remain open at the same time. This is usually the case.
- The contractor's bookkeeper has a poor understanding of how insurance premiums are calculated, checks are coming and going on several different policies all at once, and the whole thing becomes

overwhelming. This may be the case. The typical response is that the bookkeeper treats insurance on the cash basis: all checks written to the insurance company are expensed and all checks received from the insurance company are credited to expense.

At year-end, the contractor needs to make an accrual to adjust the worker's compensation expense to the amount of labor dollars actually incurred during the period. For example, the estimated policy premiums may have been based on an estimate that the contractor's payroll would be $2 million for the period from August 1 to December 31. Cash paid to the insurance company is based on this estimated payroll. If the actual payroll was $2.5 million, then an accrual is necessary to properly state the expense.

An increasingly popular form of insurance is the retrospective insurance plan. Under a retrospective plan, the contractor is basically self-insured for a portion of worker's compensation losses. The diagram below illustrates how a retrospective plan works and how this might compare to a guaranteed premium plan.




The contractor pays a minimum premium which is less than the amount that would be paid under a guaranteed premium plan. The contractor is effectively self-insured for losses that range between (a) and (b). Any losses between these two amounts come out of the contractor's own pocket and thus increase the total amount paid under the plan. At some point the amount of premium plus losses equals then exceeds the amount the contractor would have paid under the guaranteed premium plan. For any losses greater than (b) the contractor is insured completely.

Several things to be on the look out for if your contractor has a retrospective insurance plan:

- They are complex. Chances are the contractor doesn't fully understand the risks of self-insurance. Making an accrual for one of these plans involves a lot of estimates.
- If the contractor does understand the risk involved, it probably underestimated it. It sees only the upside potential, that is, the savings it has over a guaranteed premium plan. It fails to objectively assess its loss history and loss control efforts.

If you do come across one of these plans, talk to the insurance agent and make sure you thoroughly understand how they work.

**Value-Added Service Opportunity**

If your contractor is considering a retrospective insurance plan, make sure it consults with you *before* it decides. Take some time to explain to your client how the plans work. Run some numbers and make sure the client fully understands the risks it is assuming and how these stack up against the potential benefits.

## FINANCIAL STATEMENT DISCLOSURES

The AICPA publishes a disclosure checklist for construction contractors; most audit manuals will contain one as well. You should check with the AICPA to obtain the most recent disclosure checklist.

Most of the items on the checklist are self-explanatory, but a few deserve further comment.

Most contractors include supplementary schedules with their financial statements, and these are:

- Earnings from contracts.
- Completed contracts.
- Contracts in progress.
- Detailed G&A and direct costs.

You should review the schedules that are included in the example financial statements in the AICPA Audit and Accounting Guide *Construction Contractors*. These schedules begin on page 160 of the 1999 Guide. Note how they tie in to the basic financial statements. The earnings from contracts schedule supports the income statement. The two contracts schedules support the earnings from contracts. Underbilling and overbilling tie to the balance sheet.

Some contractors combine their schedules of completed and uncompleted contracts. Some contractors also include an extra column on their contract schedules to indicate accounts receivable by job.

For reasons of confidentiality, some contractors may choose not to include these three schedules as supplementary information. Instead, this information is provided directly to the surety or banker outside of the general purpose financial statements. The CPA is providing assurance in audit and review engagements even if the schedules are not included. The contract schedules are the basis for income recognition under the percentage-of-completion method, and, therefore, must be audited and reviewed in order to permit an unqualified opinion on the basic financial statements. Keep in mind that these schedules are the basis for income recognition under the percentage-of-completion method. Even if they are not included with the basic financial statements, you must still audit them in order to permit an unqualified opinion.

Backlog is another disclosure that is frequently provided by contractors. This disclosure is encouraged but not required. As a practical matter, the failure or inability to provide this information will raise a red flag for many financial statement users. Backlog is usually a significant "off balance" sheet risk and, as such, should be disclosed. The example financial statements in the Guide provide an example backlog disclosure (Note 14, on page 157 of the 1999 Guide).

The disclosure of backlog information is discussed in paragraph 6.23 of the Guide. Backlog information should only be presented if a reasonably dependable determination of total revenue and a reasonably dependable estimate of total cost under the contracts can be made.

The auditor's responsibilities with regard to backlog disclosures are presented in paragraphs 10.58 through 10.61 of the Guide.

Backlog information can derive from either signed contracts or from letters of intent. The audit and accounting guidance for backlog is summarized in Exhibit 8-2 on the next page.

Finally, in December 1994, AcSEC issued SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*. SOP 94-6 requires entities to include financial statement disclosures about the nature of their operations and the use of estimates in the preparation of financial statements. In practice, complying with these requirements of the SOP has been relatively straightforward.

However, the SOP also requires that, *if specified criteria are met*, the financial statements should include disclosures about certain significant estimates and current vulnerability due to certain concentrations.

In practice, it sometimes can be difficult to determine when the criteria that require these additional disclosures have been met. Paragraph 18 of the SOP gives examples of items that may be based on estimates that meet the criteria; that is, they are particularly sensitive to change in the near term. Examples of similar estimates that may be included in the financial statements of a contractor include:

- Construction project estimates of progress toward completion.
- Estimates of gross profit or loss accrual on construction projects.

**Exhibit 8-2**
**Disclosure and Auditor's Responsibilities**
**For Backlog Information**

| Source | Disclosure Requirements | Auditor's Responsibilities | Audit Testwork |
|---|---|---|---|
| Signed contracts whose cancellation is not expected. | • Disclosure encouraged. | • Within the scope of an auditor's responsibilities. | • Evaluate existence, completeness and accuracy of information.<br>• Obtain schedule of all uncompleted signed contracts. |
| Letters of intent. | • May be included within the backlog disclosure.<br>• If included, should be separated from backlog on signed contracts. | • Letters of intent not normally within the scope of an audit of a contractor's financial statement. | • Auditor may obtain evidence to support existence, completeness and accuracy of information. |

Examples of concentrations that may meet the criteria that require disclosure include:

- Revenue from a particular type of construction activity.
- Sources of building materials.
- Construction labor subject to collective bargaining agreements.
- Construction activities limited to a particular geographic area.

For additional insights into how SOP 94-6 might be applied to a construction contractor, refer to the article "The New Pronouncement on the Disclosure of Certain Risks and Uncertainties" by Jerome Massimino in the *Journal of Construction Accounting and Taxation* (Warren, Gorham, & Lamont, Fall 1995).

## EVALUATING A CONTRACTOR'S ABILITY TO CONTINUE AS A GOING CONCERN

To evaluate a contractor's ability to continue as a going concern, you look to many of the same indicators you would for any other business, for example, profitability, cash flow from operations, and the ability to meet debt payments.

Additionally, here's a good analytical review procedure that's unique for construction contractors. This procedure involves the following steps:

1. Estimate the fixed overhead (S, G&A) the contractor will have to cover. Determine the amount of pre-tax income the contractor needs. The sum of these two is the gross profit from jobs the contractor will need to generate in the coming year.

2. Estimate the gross profit remaining on the jobs in progress.

   **Note:** In making this estimate, use *historical* gross profit percentages on completed contracts.

3. Is the gross profit remaining on jobs in progress enough to cover the gross profit needed that was determined in step 1? If not, how much gross profit is needed from new work?

4. Using historical gross profit percentages, estimate how much volume the contractor will have to do to make the required gross profit. Given the contractor's past history, does this volume level seem reasonable?

To walk through this analytical procedure, use the example financial statements for Percentage Completion Contractors, Inc., included as an appendix to the Guide. These begin on page 145 of the 1999 Guide.

### STEP 1: ESTIMATE FUTURE GROSS PROFIT NEEDS

Future gross profit needs are the sum of fixed overhead and income before taxes. In 19X8 the example company had $895,000 of S, G&A expense. For the purposes of this example, let's assume that the contractor anticipates an increase of these expenses, and in the next year they are expected to increase to $1,100.

Income before taxes for the last two years has averaged about $850,000. Let's say that this is an acceptable income level necessary to maintain the business, the surety relationships, etc.

| | |
|---|---|
| Estimated future overhead | $ 1,100 |
| Required income before taxes | 850 |
| Gross profit required next year | $ 1,950 |

## STEP 2: ESTIMATE GROSS PROFIT REMAINING ON UNCOMPLETED CONTRACTS

The key to this step is to use the historical gross profit percentage earned on completed contracts. This will flush out any tendency the contractor might have to overestimate expected gross profit while the contract is in progress. Use the Schedule of Completed Contracts supplementary schedule:

| | |
|---|---|
| Gross profit on completed contracts | $ 1,533 |
| Revenues from completed contracts | $ 14,855 |
| Historical gross profit percentage | 10.3% |

Next, assume that the contracts in progress will end up at the same historical gross profit percentage. From this amount, subtract the amount of gross profit recognized to date to estimate the gross profit remaining. Use the Contracts in Progress supplementary schedule:

| | |
|---|---|
| Total contract revenues | $ 23,500 |
| Historical gross profit percentage | x 10.3% |
| Estimated gross profit | 2,421 |
| Gross profit recognized from inception | 1,686 |
| Estimated gross profit remaining | $ 735 |

## STEP 3: COMPARE GROSS PROFIT REMAINING TO GROSS PROFIT REQUIRED

In this step, you determine how much gross profit is required from new work, based on the estimates made in Steps 1 and 2.

| | |
|---|---|
| Gross profit required next year (Step 1) | $ 1,950 |
| Estimated gross profit remaining (Step 2) | 735 |
| Gross profit required from new work | $ 1,215 |

## STEP 4: CAN THE CONTRACTOR GENERATE THE REQUIRED NEW WORK?

So far we've determined the contractor needs to generate $1,215 in gross profit from new work in order to cover its overhead and generate a reasonable profit. How much volume is required to generate that gross profit?

Again, use historical gross profit rates to make that estimate.

| | |
|---|---|
| Gross profit required from new work | $ 1,215 |
| Historical gross profit percentage | ÷ 10.3% |
| Estimated volume | $ 11,796 |

**Reading Between the Lines**

This analytical review procedure gives you an indication of a contractor's financial strength and future operations. Use it on prospective clients as part of the client acceptance procedures. Be cautious of contractors who look as if they might have problems.

The contractor had volume of $22 and $16 million in the last two years. For the upcoming year he has about $6 million remaining on contracts in progress at year-end. Add to this the $11 million required from new work, and the total of $17 million seems well within the contractor's capabilities. Looking at the backlog footnote, it appears that with over $6 million in signed contracts (and another $5 million entered into after year-end) the contractor should have no problem meeting the $11 million required from new work.

Exhibit 8-3 on the following page summarizes the steps an auditor should take to evaluate a contractor's ability to continue as a going concern.

## SUMMARY

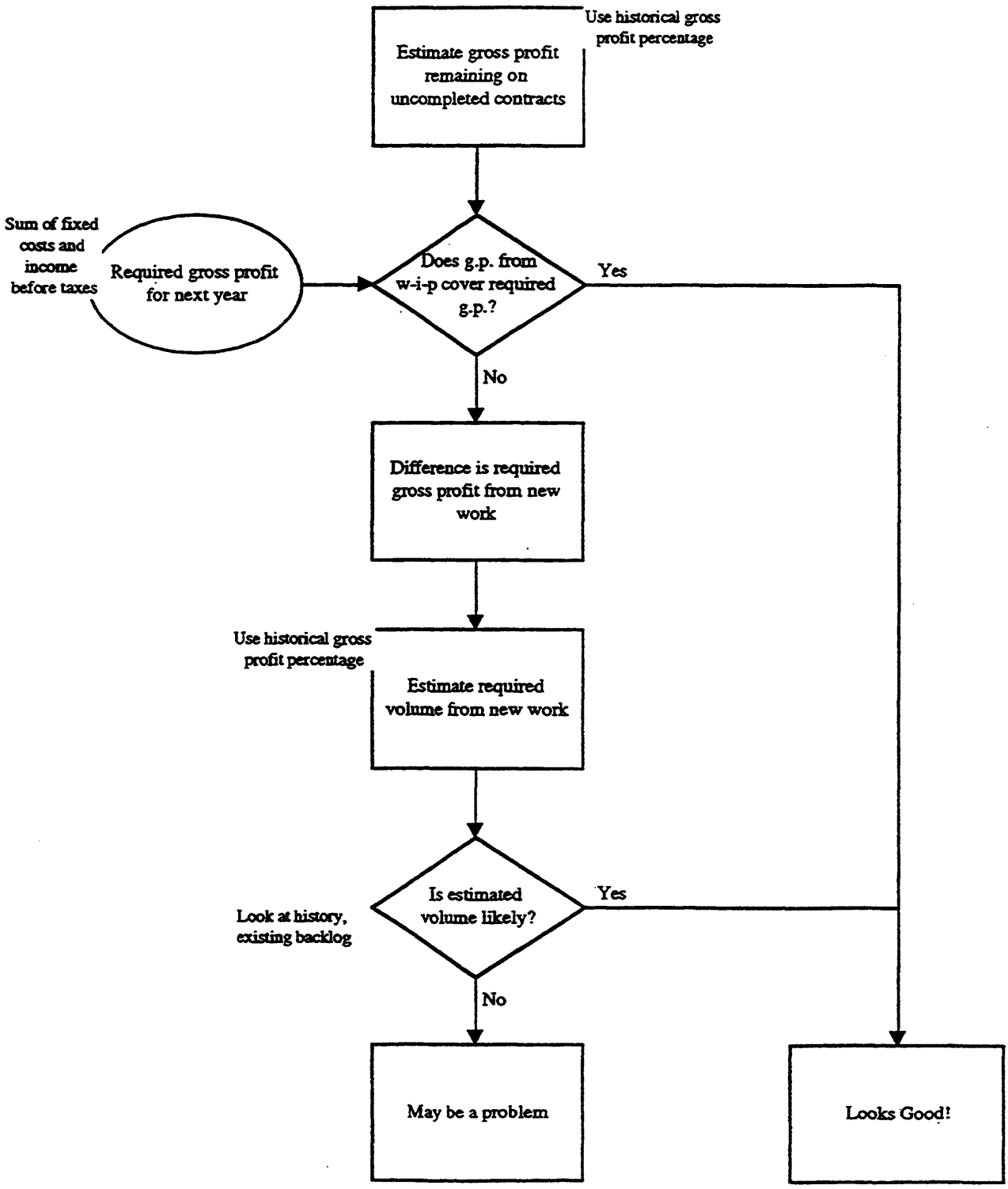
This chapter focused on other audit areas that are unique for construction contractors. There are special dangers of fraud in the construction industry. The accrual for worker's compensation insurance can be tricky and complex. The consequences of underaccrual can be severe, so this might be a high-risk area. Pay special attention to retrospective insurance policies.

Some of the financial statement disclosure items for a contractor require special consideration, for example, the backlog note and the supplementary schedules.

Finally, this chapter provided you with an analytical procedure to help assess the contractor's ability to continue as a going concern. You might also want to use this procedure during the client acceptance process.

## Exhibit 8-3

## Evaluating a Contractor as a Going Concern



# EPILOGUE

# HOW DOES THE AUDITING GUIDANCE APPLY TO A REVIEW?

You may be asked to perform a review of a contractor's financial statements and not a full-blown audit. Does the guidance in the previous five chapters apply to a review? In most cases, the answer is yes.

Chapter 4 discussed the basic audit approach. One of the key points was that the traditional "balance sheet" audit approach will not work for auditing contract-related accounts. An audit of a contractor is an audit of individual contracts. This approach holds true for a review as well. If you're reviewing a contractor's financial statements, you have to perform your review at the individual contract level.

Part of the approach included in Chapter 4 called for you to use the contract equation as a way to structure your work. You should gain evidence about each of the key components of the equation: original contract price, modifications, costs to date, costs to complete, and billings. A review should be organized similarly.

Chapter 5 introduced the idea that a contractor's financial statements can be largely dependent on estimates. To audit a contractor properly, you need to understand the impact estimates have on the financial statements. You also need to audit the contractor's ability to estimate.

The same can be said of a review. Chapter 5 includes several analytical review procedures, including those used to identify high-risk projects. All of these procedures and lines of inquiry can be applied to a review.

Gaining an understanding of the internal control structure is not required for a review level engagement. However, you probably should understand the contractor's bidding and estimating process as part of your review of the estimated costs to complete. The guidance provided in Chapter 6 should help you understand the key elements of a contractor's bidding and estimating process.

Chapter 7 contained a description of substantive procedures. Many of these procedures, for example, confirmation or tracing recorded costs to supporting invoices, are not required in a review engagement. For a review, many of these audit procedures should be replaced by inquiries of the contractor.

One thing that should definitely not be replaced is the review of the estimated costs to complete. The procedures described in Chapter 7 are analytical procedures and inquiries, and these should be followed for a review engagement.

You are not required to perform a job-site visit in a review, but it might not be a bad idea. The information gathered in a job-site visit will help you review the estimated costs to complete and also help you gain a better understanding of the client's business.

Chapter 8 included discussions of worker's compensation insurance, financial statement considerations and going concern. All of these topics and the procedures described in the chapter should be considered in a review.

# CHAPTER 9

# OVERVIEW OF TAX ACCOUNTING FOR CONSTRUCTION CONTRACTORS

## INTRODUCTION

This chapter will provide you with a broad overview of the taxation of construction contractors. Tax accounting for contractors differs from GAAP in two main areas:

1. *Revenue recognition*—when to recognize income from long-term contracts for tax purposes; and

2. *Cost capitalization and allocation*—what to capitalize and how to allocate it to individual jobs.

Of the two, the choice of revenue recognition methods is probably the most complex and the area where your expertise as a CPA will be most valued.

Differences between tax accounting methods and GAAP give rise to temporary differences, which in turn create deferred tax assets and liabilities for financial statement purposes. This chapter will summarize some of those differences.

## A PRIMER ON CODE SECTION 460

The rules for the taxation of long-term contracts are contained in Code Section 460 (outlined and reproduced on pages 9-17 et seq.), which was enacted in 1986 as part of the Tax Reform Act of 1986 (TRA '86). Before that, contractors could report revenue from long-term construction contracts under a variety of methods. Section 460 greatly restricted the use of different methods of revenue recognition.

Section 460 requires the use of the percentage-of-completion method for tax purposes. However, as with many tax rules, there are certain exemptions.

### LONG-TERM CONSTRUCTION CONTRACTS

For a contract to fall under the provisions of Code Section 460 it must be a long-term contract—defined in 460(f)(1) as:

> [A]ny contract for the manufacture, building, installation, or construction of property if such contract is not completed within the taxable year in which such contract is entered into.

**Reading Between the Lines**

In most instances, we tend to think of a long-term contract as one that lasts for a long period of time, say more than a year. For tax purposes, the duration of the contract is irrelevant. A contract is considered long-term if it is still in progress at year-end. Contracts are considered to be "in progress" if any cost (other than costs related to bidding or negotiating the contract) has been incurred. Your client may have a contract that only lasts a month, but if it was started on December 20 and finished on January 20, it's considered a long-term contract for tax purposes.

In addition to being long-term, a contract must be a construction contract to fall under the provisions of Code Section 460. A construction contract is defined in Code Section 460(e)(4) as:

> [A]ny contract for the building, construction, reconstruction, or rehabilitation of, or the installation of any integral component to, or improvements of real property.

The key phrase in that definition is "real property." Code Section 460 provides examples of real property but offers no definition. The term real property includes buildings, dams, roads, or similar property.

As a practical matter, look to Code Section 263 (interest capitalization) for guidance. On the basis of those rules, you should consider the following as real property:

- Property with a depreciable life exceeding 20 years.
- Inherently permanent structures as defined in Regulation Section 1.263A-8.

## RESIDENTIAL AND HOME CONSTRUCTION CONTRACTS

The Technical and Miscellaneous Revenue Act of 1988 (TAMRA '88) granted special exemptions for home construction contracts. That is, a contractor who performs home construction does not fall under the provisions of Code Section 460. For purposes of those exemptions, the term "home construction contract" means any construction contract if 80 percent or more of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to the building, construction, reconstruction, or rehabilitation of:

(a) Dwelling units contained in buildings containing four or fewer dwelling units, and

(b) Improvements to real property directly related to such dwelling units and located on the site of such dwelling units.

For purposes of clause (i), each townhouse or rowhouse shall be treated as a separate building.

**Reading Between the Lines**

Who qualifies for the home construction contract exemption? Clearly the homebuilder qualifies. But what about the specialty contractors who construct the various components, the plumbing, drywall, electrical, or framing?

The Treasury has not commented on whether these specialty contractors qualify for the Code Section 460 exemption. As a practical matter, most CPAs believe they do qualify for the exemption.

For purposes of the 80% test, the costs of off-site work (for example, roads, sewers, and other common features not located on the sites of dwelling units) are treated as attributable to the construction of the house (see Q & A 44 of IRS Notice 89-15).

And what if the contractor does qualify for home construction contract exemption?

The taxation of home construction contractors depends on whether the contractor meets the small contractor's exemption and whether the homes are built under a contract or without a contract and sold at a later date ("spec" builder). Table 9-1 summarizes the tax accounting for home construction contractors.

An exemption from Code Section 460 is also granted to "residential" construction contracts that do not meet the definition of home construction contracts. A residential construction contract is defined in Code Section 167(k) as follows:

> A residential construction contract is similar in definition to a home construction contract (see above), except that "dwelling unit" is more broadly defined as a house or apartment used to provide living accommodations in a building or structure. It does *not* include a unit in a hotel, motel, inn, or other establishment in which more than one-half of the units are used on a transient basis.

In other words, a contractor who builds hotels is not a residential construction contractor, but one who builds high-rise apartment buildings meets the definition.

Residential construction contracts are accounted for as follows:

- *Revenue Recognition.* Residential construction contractors use the 70/30 percentage-of-completion/capitalized cost (PCCC) method. This method is a combination of the percentage-of-completion method and the taxpayer's "normal" method. The "normal" method is the method used by the taxpayer immediately before the effective date (February 28, 1986) of Code Section 460. This may include the completed contract method, the accrual method, or in some cases, the cash method. Under the 70/30 PCCC method, the percentage-of-completion method is used for 70% of the contract, while the normal method is used for the remaining 30%.

- *Cost Capitalization.* The cost capitalization rules of Code Section 460 apply.
- *AMT.* The alternative minimum tax for residential construction contracts must be calculated using the 100% percentage-of-completion method.

**Exhibit 9-1**
**Taxation of Homebuilders**

| | Qualifies as a Small Contractor | | Does Not Qualify as a Small Contractor | |
|---|---|---|---|---|
| | Contract Builder | Spec Builder | Contract Builder | Spec Builder |
| Revenue recognition | • Tax code as it existed before TRA '86<br>• May use cash, accrual, PC, completed contract, or hybrid (Reg. Sec. 1.451-3) | • Use deferred accrual method<br>• Recognize income when closing occurs | • Tax code as it existed before TRA '86<br>• May use cash, accrual, PC, completed contract, or hybrid (Reg. Sec. 1.451-3) | • Use deferred accrual method<br>• Recognize income when closing occurs |
| Cost capitalization | • Capitalize interest [Code Sec. 460(c)(3)] | • Capitalize costs under the tax code as it existed before TRA '86 (see Code Sec. 471) | • Capitalize interest [Code Sec. 460(c)(3)]<br>• Account for other costs under uniform capitalization rules (Code Sec. 263A) | • Capitalize interest [Code Sec. 460(c)(3)]<br>• Account for other costs under uniform capitalization rules (Code Sec. 263A) |
| AMT | Does not apply | Does not apply | Does not apply | Does not apply |

## NON-APPLICABLE ACTIVITIES

For certain activities, long-term contracting is not applicable for tax purposes. These non-applicable activities are:

- Architects (see Rev. Rul. 70-67, 1970-1 C.B. 117).

- Engineers (see Rev. Rul. 80-18, 1980-1 C.B. 103).
- Engineering services and construction management (see Rev. Rul. 82-134, 1982-2 C.B. 88 and PLR 8623001).
- Industrial and commercial painting (see Rev. Rul. 84-32, 1984-1 C.B. 129).
- Construction management (see the Coordinated Issue Paper, April 17, 1995).

If a contractor is engaged in both qualifying and non-qualifying activities (for example, provides both construction and construction management services), then it must allocate income and expenses between the two activities.

## THE SMALL CONTRACTOR EXEMPTION

Most contractors will generally be exempt from Code Section 460 because they qualify for the small contractor exemption as defined in Code Section 460(e)(1)(B). Under this exemption, a small contractor enjoys the following advantages:

- The completed contract method (and other methods allowed under the "old rules" before TRA '86) can be used for income recognition.
- The "old" cost allocation rules can be used, which are not as stringent as the new rules.
- If the contractor uses the percentage-of-completion method, that method can also be applied under the "old rules." This means that the cost-to-cost method for determining percentage complete is not required, and the contractor has the flexibility to use other methods.

The small contractor is not completely exempt from the requirements of Code Section 460. Even if the contractor meets the exemption, it still must capitalize interest and compute the alternative minimum tax using the percentage-of-completion method.

To qualify for the small contractor exemption, all of the following must be met:

- The contract is a construction contract.
- At the time the construction contract is entered into, the taxpayer estimates the contract will be completed within the two-year period beginning on the contract commencement date.
- The taxpayer's average annual gross receipts for the three taxable years preceding the taxable year in which the contract is entered into do not exceed $10 million.

The taxation of small contractors will be discussed in more detail in Chapter 10.

### PROS AND CONS OF THE SMALL CONTRACTOR EXEMPTION

Perhaps the greatest benefit of electing to be taxed as a small contractor is that it allows the use of the completed contract method for revenue recognition. Use of the completed contract method will defer gross profit—and the related tax liability—until the period the job is completed. Cumulatively, taxpayers who use the completed contract method will never pay more income taxes than if the percentage-of-completion method were used.

Some of the disadvantages of using the completed contract method include the following:

- Calculation of the alternative minimum tax and deferred tax liabilities will be more complicated and may increase fees paid to the CPA.

- Cash is received throughout the job, but payment of taxes is deferred until the end. The contractor must carefully manage cash receipts from progress billings to ensure there is enough on hand to pay the taxes when the job is complete.

- If several contracts are completed during a single period, the completed contract method may require a company to recognize more income in that period than if it had used the percentage-of-completion method (though cumulatively, the contractor would still be ahead).

It is difficult to generalize about when it is best to choose the completed contract method for small contractors. Each situation needs to be evaluated on its own.

The flowchart on the following page summarizes the application of Code Section 460.

## DEFERRED TAXES

Construction contractors may have numerous differences between their financial statement accounting and their tax accounting. In turn, these differences may lead to the recognition of deferred tax assets and liabilities. Some of the more common financial statement/income tax differences are presented below:

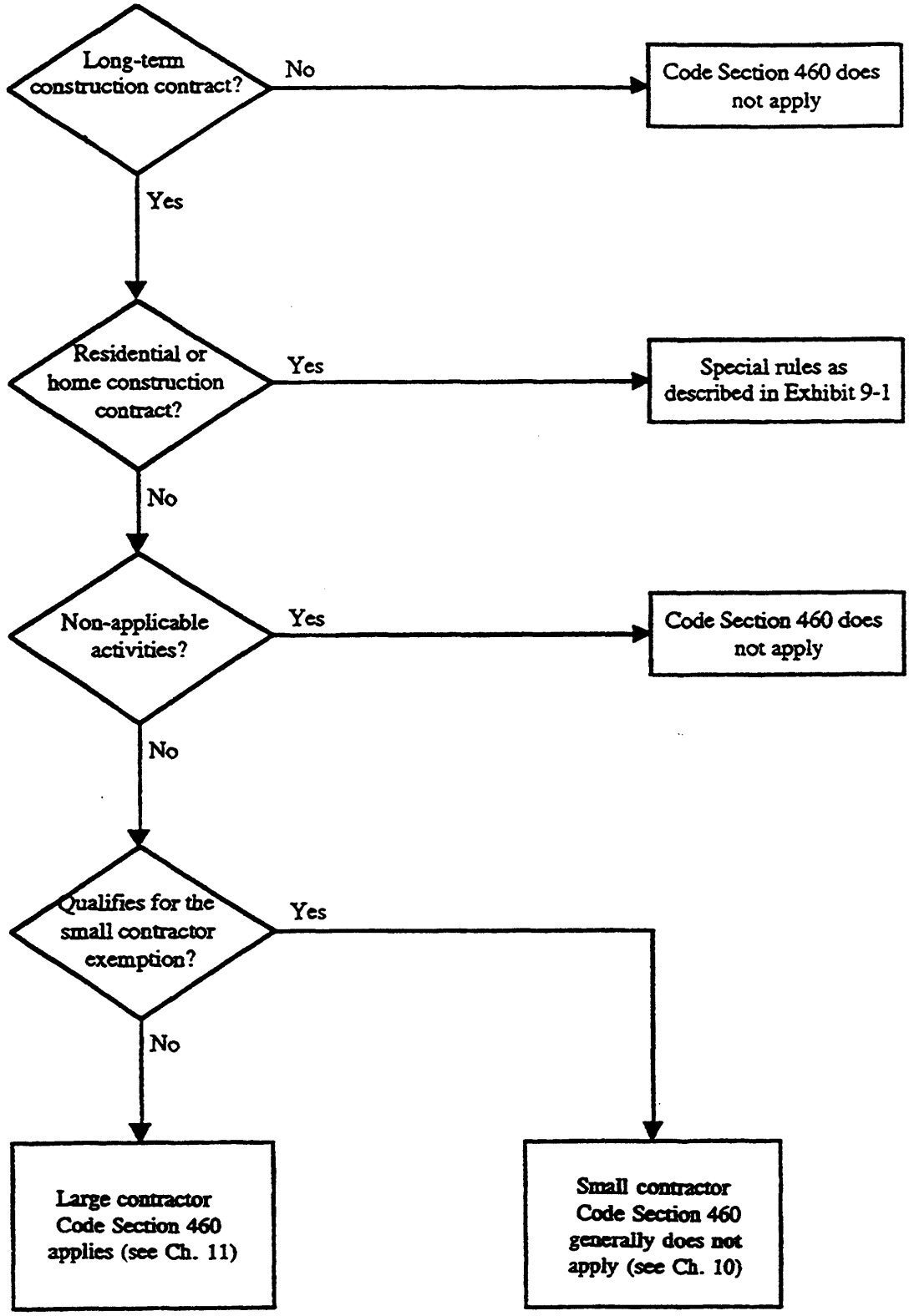
- *Revenue Recognition.* Generally, the percentage-of-completion method is used for financial statement purposes. As discussed above, many contractors are exempt from Code Section 460 and therefore are not required to use the percentage-of-completion method for tax purposes.

- GAAP permits "contract-related services" to be accounted for using long-term contract methods. For tax purposes, activities such as engineering or construction management services are precluded from long-term contract treatment.

- *Recognition of Losses.* For financial statement purposes, losses are recognized immediately. For tax purposes, losses are recognized either when the contract is completed (completed-contract method) or pro rata over the performance of the contract (percentage-of-completion method).

*(text continued on page 150)*

**Application of Code Section 460**



- *Methods for Measuring Percentage Complete.* Percentage complete may be measured using a variety of methods, for example, cost-to-cost, labor hours, or engineering estimates. Both GAAP and tax rules describe when the use of various methods is either required or advisable, and there may be circumstances where one method is used for the financial statements and another used for tax purposes.

- *Cost Capitalization.* Differences exist between what is allowed to be capitalized for financial statement purposes and what must be capitalized for tax purposes under Code Section 263A. Differences often relate to items such as capitalized interest, general and administrative costs, bid costs, research and development, and depreciation.

  If the cost-to-cost method is used to measure percentage complete, differences in the amount and types of costs capitalized will lead to differences in the cost-to-cost fraction. For example, for financial statement purposes, the client may have capitalized $60,000 in costs on a $100,000 contract. Because of differences in cost capitalization rules, that same client may have capitalized $70,000 in costs on a $105,000 contract for tax purposes. Even though the cost-to-cost method is used for both the financial statements and the tax return, the percentage-of-completion calculation is different: 60% complete for financial statement purposes and 67% complete for tax purposes.

- *Combining and Segmenting Contracts.* The income tax requirements for severing and aggregating contracts are different from the financial statement requirements for segmenting and combining.

- *Claims.* The income tax requirements for accounting for claims are different from GAAP requirements.

## SUMMARY

CPAs who provide services to construction contractors must become familiar with Code Section 460. That section generally requires contractors to recognize income using the percentage-of-completion method. However, certain types of contracts and activities are exempt from Code Section 460.

Small contractors are also exempt from Section 460 and therefore have the flexibility to choose other, more advantageous revenue recognition methods. By being exempt, they also follow less stringent rules regarding cost capitalization. (The taxation of small contractors will be discussed in detail in Chapter 10. The taxation of large contractors will be discussed in Chapter 11.)

Differences between tax accounting methods and GAAP will generate deferred taxes for financial statement purposes. Some of the more typical deferred tax items were presented in this chapter.

# APPENDIX 9-A
# CODE SECTION 460. SPECIAL RULES FOR LONG-TERM CONTRACTS

Overview of Code Section 460

(a) Requirement That Percentage-of-completion Method Be Used
(b) Description of the Percentage-of-Completion Method
- (1) Requirements of the percentage-of-completion method
- (2) Look-back method
- (3) Special rules
  - (A) Simplified method of cost allocation
  - (B) Look-back method not to apply to certain contracts
- (4) Simplified look-back method for pass-thru entities
- (5) Election to use the 10-percent method
- (6) Election to have look-back method not apply in de minimis cases
- (7) Adjusted overpayment rate

(c) Allocation of Costs to Contract
- (1) Direct and certain indirect costs
- (2) Costs identified under cost-plus and certain Federal contracts
- (3) Allocation of production period interest to contract
- (4) Certain costs not included
- (5) Independent research and development expenses

(d) Federal Long-Term Contracts

(e) Exception for Certain Construction Contracts
- (1) In general
- (2) Determination of taxpayer's gross receipts
- (3) Controlled group of corporations
- (4) Construction contract
- (5) Special rule for residential construction contracts that are not home construction contracts
- (6) Definitions relating to residential construction contracts
  - (A) Home construction contract
  - (B) Residential construction contract

(f) Long-Term Contract
- (1) In general
- (2) Special rule for manufacturing contracts
- (3) Aggregation, etc.

(g) Contract Commencement Date

(h) Regulations

## APPENDIX 9-A (CONTINUED)

### CODE SECTION 460. SPECIAL RULES FOR LONG-TERM CONTRACTS

**(a) Requirement That Percentage-of-completion Method Be Used**

In the case of any long-term contract, the taxable income from such contract shall be determined under the percentage-of-completion method (as modified by subsection (b)).

**(b) Percentage-of-completion Method**

(1) Requirements of Percentage-of-completion Method

Except as provided in paragraph (3), in the case of any long-term contract with respect to which the percentage-of-completion method is used—

(A) the percentage-of-completion shall be determined by comparing costs allocated to the contract under subsection (c) and incurred before the close of the taxable year with the estimated total contract costs, and

(B) upon completion of the contract (or, with respect to any amount properly taken into account after completion of the contract, when such amount is so properly taken into account), the taxpayer shall pay (or shall be entitled to receive) interest computed under the look-back method of paragraph (2).

In the case of any long-term contract with respect to which the percentage-of-completion method is used, except for purposes of applying the look-back method of paragraph (2), any income under the contract (to the extent not previously includible in gross income) shall be included in gross income for the taxable year following the taxable year in which the contract was completed.

For purposes of subtitle F (other than sections 6654 and 6655), any interest required to be paid by the taxpayer under subparagraph (B) shall be treated as an increase in the tax imposed by this chapter for the taxable year in which the contract is completed (or, in the case of interest payable with respect to any amount properly taken into account after completion of the contract, for the taxable year in which the amount is so properly taken into account).

(2) Look-Back Method

The interest computed under the look-back method of this paragraph shall be determined by—

(A) first, allocating income under the contract among taxable years before the year in which the contract is completed on the basis of the actual contract price and costs instead of the estimated contract price and costs,

(B) second, determining (solely for purposes of computing such interest) the overpayment or underpayment of tax for each taxable year referred to in subparagraph (A) which would result solely from the application of subparagraph (A), and

## APPENDIX 9-A (CONTINUED)

(C) then using the overpayment rate established by section 6621, compounded daily, on the overpayment or underpayment determined under subparagraph (B)*

For purposes of the preceding sentence, any amount properly taken into account after completion of the contract shall be taken into account by discounting (using the Federal mid-term rate determined under section 1274(d) as of the time such amount was properly taken into account) such amount to its value as of the completion of the contract. The taxpayer may elect with respect to any contract to have the preceding sentence not apply to such contract.

(3) Special Rules

(A) Simplified method of cost allocation

In the case of any long-term contract, the Secretary may prescribe a simplified procedure for allocation of costs to such contract in lieu of the method of allocation under subsection (c).

(B) Look-back method not to apply to certain contracts

Paragraph (1)(B) shall not apply to any contract—

(i) the gross price of which (as of the completion of the contract) does not exceed the lesser of—

(I) $1,000,000, or

(II) 1 percent of the average annual gross receipts of the taxpayer for the 3 taxable years preceding the taxable year in which the contract was completed, and

(ii) which is completed within 2 years of the contract commencement date.

For purposes of this subparagraph, rules similar to the rules of subsections (e)(2) and (f)(3) shall apply.

(4) Simplified Look-Back Method for Pass-Thru Entities

(A) In general

In the case of a pass-thru entity—

* The foregoing sentence applies to contracts completed in tax years ending before August 6, 1997. It has been amended as follows to apply to contracts completed in tax years ending after August 5, 1997:

(C) then using the adjusted overpayment rate (as defined in paragraph (7)), compounded daily, on the overpayment or underpayment determined under subparagraph (B).

## APPENDIX 9-A (CONTINUED)

(i) the look-back method of paragraph (2) shall be applied at the entity level,

(ii) in determining overpayments and underpayments for purposes of applying paragraph (2)(B)

(I) any increase in the income under the contract for any taxable year by reason of the allocation under paragraph (2)(A) shall be treated as giving rise to an underpayment determined by applying the highest rate for such year to such increase, and

(II) any decrease in such income for any taxable year by reason of such allocation shall be treated as giving rise to an overpayment determined by applying the highest rate for such year to such decrease, and

(iii) any interest required to be paid by the taxpayer under paragraph (2) shall be paid by such entity (and any interest entitled to be received by the taxpayer under paragraph (2) shall be paid to such entity).

(B) Exceptions

(i) Closely held pass-thru entities

This paragraph shall not apply to any closely held pass-thru entity.

(ii) Foreign contracts

This paragraph shall not apply to any contract unless substantially all of the income from such contract is from sources in the United States.

(C) Other definitions

For purposes of this paragraph—

(i) Highest rate

The term "highest rate" means—

(I) the highest rate of tax specified in section 11, or

(II) if at all times during the year involved more than 50 percent of the interests in the entity are held by individuals directly or through 1 or more other pass-thru entities, the highest rate of tax specified in section 1.

(ii) Pass-thru entity

## APPENDIX 9-A (CONTINUED)

The term "pass-thru entity" means any—

(I) partnership,

(II) S corporation, or

(III) trust.

(iii) Closely held pass-thru entity

The term "closely held pass-thru entity" means any pass-thru entity if, at any time during any taxable year for which there is income under the contract, 50 percent or more (by value) of the beneficial interests in such entity are held (directly or indirectly) by or for 5 or fewer persons. For purposes of the preceding sentence, rules similar to the constructive ownership rules of section 1563(e) shall apply.

(5) Election to Use 10-Percent Method

(A) General rule

In the case of any long-term contract with respect to which an election under this paragraph is in effect, the 10-percent method shall apply in determining the taxable income from such contract.

(B) 10-percent method

For purposes of this paragraph—

(i) In general

The 10-percent method is the percentage-of-completion method, modified so that any item which would otherwise be taken into account in computing taxable income with respect to a contract for any taxable year before the 10-percent year is taken into account in the 10-percent year.

(ii) 10-percent year

The term "10-percent year" means the 1st taxable year as of the close of which at least 10 percent of the estimated total contract costs have been incurred.

(C) Election

An election under this paragraph shall apply to all long-term contracts of the taxpayer which are entered into during the taxable year in which the election is made or any subsequent taxable year.

## APPENDIX 9-A (CONTINUED)

(D) Coordination with other provisions

(i) Simplified method of cost allocation

This paragraph shall not apply to any taxpayer which uses a simplified procedure for allocation of costs under paragraph (3)(A).

(ii) Look-back method

The 10-percent method shall be taken into account for purposes of applying the look-back method of paragraph (2) to any taxpayer making an election under this paragraph.

(6) Election to have look-back method not apply to de minimis cases

(A) Amounts taken into account after completion of contract. Paragraph (1)(B) shall not apply with respect to any taxable year (beginning after the taxable year in which the contract is completed) if—

(i) the cumulative taxable income (or loss) under the contract as of the close of such taxable year, is within

(ii) 10 percent of the cumulative look-back taxable income (or loss) under the contract as of the close of the most recent taxable year to which paragraph (1)(B) applied (or would have applied but for subparagraph (B)).

(B) De minimis discrepancies. Paragraph (1)(B) shall not apply in any case to which it would otherwise apply if—

(i) the cumulative taxable income (or loss) under the contract as of the close of each prior contract year, is within

(ii) 10 percent of the cumulative look-back income (or loss) under the contract as of the close of such prior contract year.

(C) Definitions. For purposes of this paragraph—

(i) Contract year. The term "contract year" means any taxable year for which income is taken into account under the contract.

(ii) Look-back income or loss. The look-back income (or loss) is the amount which would be taxable income (or loss) under the contract if the allocation method set forth in paragraph (2)(A) were used in determining taxable income.

## APPENDIX 9-A (CONTINUED)

(iii) Discounting not applicable. The amounts taken into account after the completion of the contract shall be determined without regard to any discounting under the 2nd sentence of paragraph (2).

(D) Contracts to which paragraph applies. This paragraph shall only apply if the taxpayer makes an election under this subparagraph. Unless revoked with the consent of the Secretary, such an election shall apply only to all long-term contracts completed during the taxable year for which election is made or during any subsequent taxable year.

(7) Adjusted overpayment rate

(A) In general. The adjusted overpayment rate for any interest accrual period is the overpayment rate in effect under section 6621 for the calendar quarter in which such interest accrual period begins.

(B) Interest accrual period. For purposes of subparagraph (A), the term "interest accrual period" means the period—

(i) beginning on the day after the return due date for any taxable year of the taxpayer, and

(ii) ending on the return due date for the following taxable year.

For purposes of the preceding sentence, the term "return due date" means the date prescribed for filing the return of the tax imposed by this chapter (determined without regard to extensions).

**(c) Allocation of Costs to Contract**

(1) Direct and Certain Indirect Costs

In the case of a long-term contract, all costs (including research and experimental costs) which directly benefit, or are incurred by reason of, the long-term contract activities of the taxpayer shall be allocated to such contract in the same manner as costs are allocated to extended period long-term contracts under section 451 and the regulations thereunder.

(2) Costs Identified Under Cost-Plus and Certain Federal Contracts

In the case of a cost-plus long-term contract or a Federal long-term contract, any cost not allocated to such contract under paragraph (1) shall be allocated to such contract if such cost is identified by the taxpayer (or a related person), pursuant to the contract or Federal, State, or local law or regulation, as being attributable to such contract.

## APPENDIX 9-A (CONTINUED)

(3) Allocation of Production Period Interest to Contract

(A) In general

Except as provided in subparagraphs (B) and (C), in the case of a long-term contract, interest costs shall be allocated to the contract in the same manner as interest costs are allocated to property produced by the taxpayer under section 263A(f).

(B) Production period

In applying section 263A(f) for purposes of subparagraph (A), the production period shall be the period—

(i) beginning on the later of—

(I) the contract commencement date, or

(II) in the case of a taxpayer who uses an accrual method with respect to long-term contracts, the date by which at least 5 percent of the total estimated costs (including design and planning costs) under the contract have been incurred, and

(ii) ending on the contract completion date.

(C) Application of de minimis rule

In applying section 263A(f) for purposes of subparagraph (A), paragraph (1)(B)(iii) of such section shall be applied on a contract-by-contract basis; except that, in the case of a taxpayer described in subparagraph (B)(i)(II) of this paragraph, paragraph (1)(B)(iii) of section 263A(f) shall be applied on a property-by-property basis.

(4) Certain Costs Not Included

This subsection shall not apply to any—

(A) independent research and development expenses,

(B) expenses for unsuccessful bids and proposals, and

(C) marketing, selling, and advertising expenses.

(5) Independent Research and Development Expenses

For purposes of paragraph (4), the term "independent research and development expenses" means any expenses incurred in the performance of research or development, except that such term shall not include—

## APPENDIX 9-A (CONTINUED)

(A) any expenses which are directly attributable to a long-term contract in existence when such expenses are incurred, or

(B) any expenses under an agreement to perform research or development.

**(d) Federal Long-Term Contract**

For purposes of this section—

(1) In General

The term "Federal long-term contract" means any long-term contract—

(A) to which the United States (or any agency or instrumentality thereof) is a party, or

(B) which is a subcontract under a contract described in subparagraph (A).

(2) Special Rules for Certain Taxable Entities

For purposes of paragraph (1), the rules of section 168(h)(2)(D) (relating to certain taxable entities not treated as instrumentalities) shall apply.

**(e) Exception for Certain Construction Contracts**

(1) In General

Subsections (a), (b), and (c)(1) and (2) shall not apply to—

(A) any home construction contract, or

(B) any other construction contract entered into by a taxpayer—

(i) who estimates (at the time such contract is entered into) that such contract will be completed within the 2-year period beginning on the contract commencement date of such contract, and

(ii) whose average annual gross receipts for the 3 taxable years preceding the taxable year in which such contract is entered into do not exceed $10,000,000.

In the case of a home construction contract with respect to which the requirements of clauses (i) and (ii) of subparagraph (B) are not met, section 263A shall apply notwithstanding subsection (c)(4) thereof.

## APPENDIX 9-A (CONTINUED)

(2) Determination of Taxpayer's Gross Receipts

For purposes of paragraph (1), the gross receipts of—

(A) all trades or businesses (whether or not incorporated) which are under common control with the taxpayer (within the meaning of section 52(b)),

(B) all members of any controlled group of corporations of which the taxpayer is a member, and

(C) any predecessor of the taxpayer or a person described in subparagraph (A) or (B),

for the 3 taxable years of such persons preceding the taxable year in which the contract described in paragraph (1) is entered into shall be included in the gross receipts of the taxpayer for the period described in paragraph (1)(B). The Secretary shall prescribe regulations which provide attribution rules that take into account, in addition to the persons and entities described in the preceding sentence, taxpayers who engage in construction contracts through partnerships, joint ventures, and corporations.

(3) Controlled Group of Corporations

For purposes of this subsection, the term "controlled group of corporations" has the meaning given to such term by section 1563(a), except that—

(A) "more than 50 percent" shall be substituted for "at least 80 percent" each place it appears in section 1563(a)(1), and

(B) the determination shall be made without regard to subsections (a)(4) and (e)(3)(C) of section 1563.

(4) Construction Contract

For purposes of this subsection, the term "construction contract" means any contract for the building, construction, reconstruction, or rehabilitation of, or the installation of any integral component to, or improvements of, real property.

(5) Special Rule for Residential Construction Contracts That Are Not Home Construction Contracts

In the case of any residential construction contract which is not a home construction contract, subsection (a) (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1989) shall apply except that such subsection shall be applied—

(A) by substituting "70 percent" for "90 percent" each place it appears, and

(B) by substituting "30 percent" for "10 percent."

## APPENDIX 9-A (CONTINUED)

(6) Definitions Relating to Residential Construction Contracts

For purposes of this subsection—

(A) Home construction contract

The term "home construction contract" means any construction contract if 80 percent or more of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to activities referred to in paragraph (4) with respect to—

(i) dwelling units (as defined in section 168(e)(2)(A)(ii)) contained in buildings containing 4 or fewer dwelling units (as so defined), and

(ii) improvements to real property directly related to such dwelling units and located on the site of such dwelling units. For purposes of clause (i), each townhouse or rowhouse shall be treated as a separate building.

(B) Residential construction contract

The term "residential construction contract" means any contract which would be described in subparagraph (A) if clause (i) of such subparagraph reads as follows: "(i) dwelling units (as defined in section 168(e)(2)A(ii)), and."

**(f) Long-Term Contract**

For purposes of this section—

(1) In General

The term "long-term contract" means any contract for the manufacture, building, installation, or construction of property if such contract is not completed within the taxable year in which such contract is entered into.

(2) Special Rule for Manufacturing Contracts

A contract for the manufacture of property shall not be treated as a long-term contract unless such contract involves the manufacture of—

(A) any unique item of a type which is not normally included in the finished goods inventory of the taxpayer, or

(B) any item which normally requires more than 12 calendar months to complete (without regard to the period of the contract).

## APPENDIX 9-A (CONTINUED)

(3) Aggregation, etc.

For purposes of this subsection, under regulations prescribed by the Secretary—

(A) 2 or more contracts which are interdependent (by reason of pricing or otherwise) may be treated as 1 contract, and

(B) a contract which is properly treated as an aggregation of separate contracts may be so treated.

**(g) Contract Commencement Date**

For purposes of this section, the term "contract commencement date" means, with respect to any contract, the first date on which any costs (other than bidding expenses or expenses incurred in connection with negotiating the contract) allocable to such contract are incurred.

**(h) Regulations**

The Secretary shall prescribe such regulations as may be necessary or appropriate to carry out the purposes of this section, including regulations to prevent the use of related parties, pass-thru entities, intermediaries, options, or other similar arrangements to avoid the application of this section.

# APPENDIX 9-B

# IRS NOTICE 89-15

**IRS Notice 89-15**
**(1989-1 CB 634)**

**Long-Term Contracts.**

**Notice 89-15**

This notice provides guidance with respect to section 460 of the Code, relating to the accounting for long-term contracts.

I. BACKGROUND

Section 804 of the Tax Reform Act of 1986, Pub. L. No. 99-514 (the "1986 Act"), added section 460 to the Internal Revenue Code, effective for contracts entered into after February 28, 1986. Section 10203 of the Revenue Act of 1987, Pub. L. No. 100-203 (the "1987 Act"), amended section 460, effective for contracts entered into after October 13, 1987 (except for certain ship contracts described in section 10203(b)(2) of the 1987 Act). Section 5041 of the Technical and Miscellaneous Revenue Act of 1988, Pub. L. No. 100-647 (the "1988 Act") further amended section 460, effective for contracts entered into after June 20, 1988 (except for certain ship contracts, as provided in section 5041(e)(1)(C) of the 1988 Act). The Questions and Answers in this notice discuss general rules under section 460, changes to section 460 made by the 1988 Act, and transitional rules under the 1988 Act. Previous guidance concerning section 460 was provided in Notice 87-61, 1987-2 C.B. 370, and Notice 88-66, 1988-1 C.B. 552.

Rules for determining whether a contract is a long-term contract within the meaning of section 460 are set forth in Q&A-2 through Q&A-8. The effective date of section 460 is discussed in Q&A-9 through Q&A-13. Rules for determining which of the two long-term contract methods must be used by a taxpayer are set forth in Q&A-14. Rules for applying the percentage of completion-capitalized cost method are set forth in Q&A-15 through Q&A-18. Question 17 addresses the application of the percentage of completion-capitalized cost method by a taxpayer using a LIFO method of valuing inventories. Rules for applying the percentage of completion method are set forth in Q&A-19 through Q&A-36. Q&A-37 and Q&A-38 address the rules that apply to severing and aggregating contracts. Rules for determining which costs are allocable to a long-term contract, and therefore taken into account under section 460, are set forth in Q&A-39 and Q&A-40. The exceptions applicable to certain construction contracts provided by section 460(e) are explained in Q&A-41 through Q&A-46. Rules governing changes in methods of accounting under section 460 are set forth in Q&A-7, Q&A-13, and Q&A-47 through Q&A-49.

The Internal Revenue Service expects to issue separate guidance relating to the look-back method of section 460(b). This notice does not address the look-back method. See Form 8697 and its instructions.

II. PERMISSIBLE METHODS OF ACCOUNTING FOR LONG-TERM CONTRACTS

Q-1: Under section 460 of the Internal Revenue Code, what methods of accounting are to be used for items of income from and costs allocable to longterm contracts?

A-1: With the exception of certain construction contracts (including certain home construction contracts entered into after June 20, 1988) described in section 460(e)(1) (see Q&A-42 through Q&A-44), section 460(a) requires that items of income from and costs allocable to a long-term contract be taken into account under either of two methods of accounting: (1) the percentage of completion method, or (2) the percentage of completion-capitalized cost method. Rules for determining which of these two methods must be used by a taxpayer are set forth in Q&A-14.

III. DEFINITION OF LONG-TERM CONTRACT

Q-2: What is a long-term contract for purposes of section 460?

A-2: In general, under section 460(f) a long-term contract is any contract for the manufacture, building, installation or construction of property if the contract is not completed within the taxable year in which it is entered into. A contract for the manufacture of property. However, is not treated as a long-term contract unless certain additional conditions set forth in section 460(f)(2) (and explained in Q&A-5) are met. For these purposes, a contract for the production of personal property is generally considered to be a contract for the manufacture of property. In contrast, any contract for the production or installation of real property or any improvements to real property, is considered to be a contract for the building, installation, or construction of property.

In determining whether a contract is completed in the taxable year in which it is entered into, all activities of the taxpayer and any related parties in connection with the manufacture, building, installation, or construction must be taken into account. For additional rules applicable to related parties, see Q&A-8.

Q-3: In determining whether a contract is a long-term contract, is it relevant that the taxpayer reasonably believed at the time that the contract was entered into that it would be completed within the same taxable year.

A-3: No. A contract that satisfies the definition of a long-term contract set forth in Q&A-2 is considered a longterm contract even though the taxpayer expected that it would be completed within the taxable year.

Q-4: Is a contract considered to be for the "manufacture, building, installation, or construction of property," even though the contract provides that the contractor is to retain title to, control over, and risk of loss with respect to the property until it is completed and accepted by the customer, and even though the parties characterize the contract as a contract for the sale of property?

A-4: Such a contract is considered to be for the "manufacture, building, installation, or construction of property." If the manufacture, building, installation, or construction of the subject matter of the contract is necessary in order for the taxpayer's contractual obligations to be fulfilled, and if the manufacture, building, installation or construction has not been completed at the time that the contract is entered into. It is not relevant whether the customer has title to, control over, or risk of loss with respect to the property. Moreover, it is not relevant whether the parties characterize their agreement as a contract for the sale of property.

*Example* (1). Y notifies X, an aircraft manufacturer, that it wished to purchase an aircraft of a particular type. At the time X receives the order, X has on hand several partially completed aircraft of this type however, X does not have any completed aircraft of this type on hand. X and Y agree that Y will purchase one of these aircraft after it has been completed. X retains title to and risk of loss with respect to the aircraft until the sale takes place. The agreement between X and Y is a contract for the manufacture of property within the meaning of section 460(f)(1), even if characterized by the parties as a contract for the sale of property. (See Q&A-5 for additional conditions that must be met in order for a contract for the manufacture of property to be a long-term contract.)

*Example* (2). A, a calendar year builder with average annual gross receipts of more than $10 million, begins construction of a house in October 1988, on speculation that it will find a buyer. In November 1988, A enters into a contract with B under which B agrees to purchase the house upon completion of construction. The construction of the home is not complete on December 31, 1988. A's contract with B is a contract for the building or construction of property within the meaning of section 460(f)(1), even if characterized by the parties as a contract for the sale of the house, since A must build or construct property to comply with the contract. Assuming, however, that the contract is a "home construction

## APPENDIX 9-B (CONTINUED)

contract" within the meaning of section 460(e)(1)(A) and (c)(6)(A). A is not required to use the percentage of completion method or the percentage of completion-capitalized cost method of accounting for regular tax purposes because A entered into the contract after June 20, 1988. See Q&A-42. A must account for the contract using the rules of section 263A and the regulations thereunder. In addition, because A's average annual gross receipts exceed $10 million, A is required to use the percentage of completion method for purposes of determining A's alternative minimum tax liability. See Q&A-46.

*Example* (3). The facts are the same as in Example (2) except that A begins construction of the house in October 1987 and enters into a contract with B in November 1987. A is required to use the percentage of completion or percentage of completion-capitalized cost method of accounting for the contract under section 460 as amended by the 1987 Act.

*Example* (4). The facts are the same as Example (6) except that A completes construction of the house and subsequently enters into a contract with B for the purchase of the house. Because A is not required to build or contract property to complete the contract, the contract is not a long-term contract subject to section 460.

*Example* (5). C, a calendar year home builder with average annual gross receipts of more than $10 million, enters into a contract with D on July 1, 1988 to build a house for D. D has title to the lot on which the house is built, provides C with all materials, and has title to the house while the house is under construction. The contract is completed in February 1989. The contract is a contract for the construction of property, notwithstanding the fact that C does not have title to the subject matter of the contract. The contract is, therefore, a long-term contract within the meaning of section 460(f). Assume that the contract is a home construction contract" within the meaning of section 460(e)(1)(A). Because the contract was entered into after June 20, 1988, C is not required to use the percentage (if completion method or the percentage of completion-capitalized cost method of accounting. C must account for the contract using the rules of section 263A and the regulations thereunder. Thus, C must capitalize all of its costs incurred in constructing the home, including labor costs, interest, and all indirect costs allocable to the construction activities under section 263A and the regulations thereunder. See section 460(e)(1). In addition, because C's average annual gross receipts exceed $10 million, C is required to use the percentage of completion method for purposes of determining C's alternative minimum tax liability.

Q-5: What additional conditions apply in determining whether a contract for the manufacture of property is a long-term contract within the meaning of section 460(f)?

A-5: Under section 460(f)(2), a contract for the manufacture of property is not treated as a long-term contract unless the contract involves the manufacture of either (A) a unique item of a type that is not normally included in the finished goods inventory of the taxpayer, or (B) an item that normally requires more than 12 calendar months to complete (without regard to the period of the contract).

Since the item must meet only one of these two criteria, a manufacturing contract that is not completed in the taxable year in which it is entered into is a longterm contract within the meaning of section 460(f) if it is for the manufacture of an item that normally requires more than 12 calendar months to complete, even if the item is not unique. In determining the time normally required for the manufacture of an item, all activities of the taxpayer and of any related party relating to the manufacture must be taken into account. See H.R. Rep. No. 795, 100th Cong., 2d Sess. 470 (1988). Thus, the time required to manufacture an item is not limited to the time required to assemble the item and includes the time required for activities such as production of components and subassemblies by the taxpayer or by any related party. For purposes of this paragraph, a related party is a person whose relationship to the taxpayer is described in section 707(b) or 267(b), determined without regard to section 267(f)(1)(A) and determined by substituting "80 percent" for "50 percent" with regard to the ownership of the stock of a C corporation in subsections (b)(2), (b)(8), (b)(10)(A) and (b)(12) of section 267.

The rule of this Q&A-5 that the activities of related parties are to be taken into account in determining the normal production period of an item shall, in general, apply only to contracts entered into on or after June 21, 1988. However, this rule shall apply to any contract entered into after February 28, 1986 if (i) the taxpayer has arranged for a party whose relationship with the taxpayer is described in section 267(b) or 707(b) (and regardless of whether the degree of ownership requirements of the applicable section are satisfied) to perform a portion of the activities required to fulfill the contract, and (ii) a principal purpose of that arrangement is to avoid characterization of the contract as a longterm contract.

*Example.* X, a construction equipment manufacturer that is a calendar year taxpayer, produces a type of crane. X purchases a number of the component of the crane from suppliers that are related parties. The manufacture of these components and their shipment to X normally takes 5 months to complete. Completion of a crane using these components normally requires an additional 8 months from the time X receives them. Therefore, the crane is an item of a type that normally requires more than 12 months to complete. X normally does not produce the cranes under contracts with particular customers, but instead produces the goods for finished goods inventory, and enters into contracts for sale of the cranes after they are completed. X begins work on several cranes on July 1, 1988. Notwithstanding X's normal practice of completing cranes before contracting for their sale, on December 1, 1988, X enters into a contract with buyers for the cranes. On February 1, 1989, X completes the cranes, one month ahead of schedule. The contract is a long-term contract within the meaning of section 460(f), even though the cranes are an item of a type that X normally includes in finished goods inventory, and even though the duration of the contract was only two months, because the crane is an item of a type that normally requires more than 12 calendar months to complete.

Q-6: Do the additional conditions set forth in Q&A-5 apply in determining whether a contract for the building, installation, or construction of property is a long-term contract?

A-6: No. A contract for the building, installation, or construction of property that is not completed in the taxable year in which it is entered into is a long-term contract even if the property is not unique and does not normally require more than 12 months to complete. Thus, for example, a contract to build a house or other building is a long-term contract if it is not completed in the taxable year in which it is entered into, because the requirements applicable to manufacturing (that the property must be unique or that each item normally require more than 12 months to complete) do not apply to building, construction, or installation contracts.

Q-7: For taxpayers that used a longterm contract method for contracts entered into prior to the effective date of section 460, what restrictions apply with respect to the criteria used by the taxpayer for determining whether similar contracts entered into on or after the effective date of section 460 are longterm contracts?

A-7: Any taxpayer that, immediately prior to the effective date of section 460, accounted for contracts based on the position that such contracts were longterm contracts under section 1.451-3(b) of the Income Tax Regulations, is required to account for such contracts (and any successor contracts) under section 460 unless the taxpayer obtains the consent of the Commissioner to change its method of accounting. This is true even if the taxpayer's position under prior law was based on an erroneous application of the definition of "long-term" contract in section 460(f) and this notice. For these purposes, the term "successor contracts" means all contracts which, under the criteria and methods used by the taxpayer prior to the effective date of section 460 in determining whether a contract was a long-term contract under section 1.451-3(b) of the regulations, would be or have been classified by such taxpayer as long-term contracts under section 1.451-3(b), regardless of whether those criteria and methods are correct. Thus, for example, it is anticipated that the criteria and methods used by a taxpayer in determining that items were "unique" prior to February 28, 1986, and thus were produced under long-term contracts, will continue to be used by the taxpayer unless the taxpayer obtains the consent of the Commissioner to change its method of accounting. See H.R. Rep. No. 495, 100th Cong., 2d Sess. 923 (1987).

Q-8: How does section 460 apply to activities performed by a taxpayer ("Y") for a related party ("X") that, considered by themselves, would not constitute a long-term contract between X and Y, but that benefit the performance of a long-term contract entered into by X with any customer of X?

A-8: If X has entered into a long-term contract after June 20, 1988, with a customer, and Y, a taxpayer that is related to X, performs any activities for or on behalf of X that benefit or are performed by reason of X's contract, then Y shall account under section 460 for its income and costs attributable to such activities. Such activities include, for example, the

# APPENDIX 9-B (CONTINUED)

production of items, such as components or subassemblies, that are reasonably expected to be used in the production of the subject matter of X's contract. Y is required to account for such activities under section 460 regardless of whether Y's activities, considered by themselves, (i) constitute manufacture, building, construction, or installation of property, (ii) involve the manufacture of items that either are "unique" or require more than 12 months to complete, (iii) span the end of Y's taxable year, or (iv) are performed pursuant to a contract with X. For purposes of this paragraph, a related party is a person whose relationship to the taxpayer is described in section 707(b) or 267(b), determined without regard to section 267(f)(1)(A) and determined by substituting "80 percent" for "50 percent" with regard to the ownership of the stock of a C corporation in subsections (b)(2), (b)(8), (b)(10)(A) and (b)(12) of section 267.

In applying section 460, Y should treat as the total expected contract price the amount to be paid by X, if such amount represents an arm's length charge. If this amount does not represent an arm's length charge, then Y must use an arm's length charge as the total expected contract price. This arm's length charge must reflect both Y's contribution to the long-term contract being performed by X, and the contract price to be received by X. In addition, if Y treats as total expected contract price an arm's length charge that differs from the actual amount that X is obligated to pay, then X must treat that arm's length charge as the cost that X incurs with respect to Y's activities.

For purposes of determining its own percentage of completion, X shall take into account the amount that it accrues as payable to Y (or is treated as accruing as payable to Y under the preceding paragraph) at the time that X accrues such amount, rather than at the time that Y incurs costs to perform activities benefiting X's long-term contract.

The rule of this Q&A-8 requiring that certain activities of related parties such as Y be accounted for under section 460 even though such activities do not, by themselves, constitute a long-term contract shall in general apply only to contracts entered into by X on or after June 21, 1988. However, this rule shall apply to any contract entered into after February 28, 1986, if X has arranged for a party whose relationship with X is described in section 707(b) or 267(b) (and regardless of whether the degree of ownership requirements of the applicable section are satisfied) to perform a portion of the activities required to fulfill the contract, and a principal purpose of that arrangement is to avoid the application of section 460 to the income and expenses attributable to such activities.

*Example.* On July 1, 1988, X, an accrual method taxpayer, enters into a long-term contract within the meaning of section 460(f) to produce 5 aircraft for C. Y1, an 80-percent-owned subsidiary of X and also an accrual method taxpayer, incurs cost in 1988 and 1989 to perform research, development, engineering and design work necessary to produce the aircraft. Assume that, if X had performed these activities itself, the costs would have been properly allocable to the contract. This work is completed in 1989. Y2, also an 80-percent-owned subsidiary of X, and also an accrual method taxpayer, manufactures engines in 1989 and 1990 for the aircraft. Y2's work is completed in 1990. Assume that X pays Y1 and Y2 amounts that are arm's length charges as determined under the principles of section 482, with such charges reflecting both the contributions of Y1 and Y2 to the contract being performed by X and the price to be received by X.

Both Y1 and Y2 must account for their activities under section 460 regardless of whether (i) Y1's activities considered by themselves would constitute the manufacture of property, (ii) the aircraft engines are "unique" or require more than 12 months to complete, and (iii) Y1 and Y2 have entered into contracts with X. Y1 must include the amount to be payable by X in income in 1988 and 1989, and Y2 must include the amount to be payable by X in 1989 and 1990, under either the percentage of completion or percentage of completion-capitalized cost method, under the rules applicable to long-term contracts entered into on July 1, 1988. Y1 and Y2 must apply the look-back method in 1989 and 1990, respectively. Y1 and Y2 are subject to the cost allocation rules of section 460(b). X is not required to take the costs incurred by Y1 and Y2 into account in determining its own percentage of completion for 1988 through 1990. Instead, X takes into account the amounts that it accrues as payable to Y1 and Y2 in determining its percentage of completion at the time that X incurs such amounts. See Q&A-32 and Q&A-33.

## IV. EFFECTIVE DATE OF SECTION 460

Q-9: When is section 460 effective?

A-9: Section 460 (including the interest allocation requirements of section 460(c)(3)) and the rules set forth in this notice are, except as expressly provided to the contrary in this notice, effective for long-term contracts entered into after February 28, 1986, beginning with taxable years ending after February 28, 1986. For rules governing the accounting for costs allocable to contracts entered into after February 28, 1986, but incurred in taxable years ending before March 1, 1986, see Q&A-29 and Q&A-36. No inference is intended concerning the extent to which the rules applicable after the effective date of section 460 would apply to issues arising under the law in effect before the enactment of section 460.

Q-10: Does section 460 apply to a contract that is entered into by the taxpayer before March 1, 1986, but is assigned by the taxpayer on or after that date to another person?

A-10: The assignee must account for such a contract under section 460 unless (i) none of the terms of the contract are changed in connection with the assignment, and (ii) the assignee agrees to perform all of the assignor's remaining obligations under the contract and becomes entitled to all remaining payments under the contract. If the conditions of the previous sentence are met, such a contract is not subject to section 460 even if the assignor does not remain liable to the customer after the assignment and even if the assignee becomes liable to the customer. This rule applies regardless of whether the assignor and assignee are related persons, and regardless of whether the assignment occurs in connection with a taxable sale or a nontaxable transaction. The assignee must account for contract income and costs using its "normal" method of accounting for long-term contracts (as defined in Q&A-18) as of the date of the transfer (which may or may not be the same as the normal method of accounting of the assignor), except as provided in section 381 of the Code, or any other applicable provision of the Code or regulations. If the assignee has not adopted a method of accounting for long-term contracts as of the time of the transfer (as may be the case if, for example, the assignee is a new taxpayer, or has never performed a long-term contract), the assignee generally may use any method of accounting for a long-term contract permitted under section 1.451-3 of the regulations (e.g., the completed contract method or the accrual method). If, however, such an assignee has a relationship to the assignor described in section 267(b) or 707(b) immediately after the assignment, then the assignee must use the assignor's normal method. For this purpose, whether the assignee and assignor have a relationship described in section 267(b) shall be determined without regard to section 267(f)(1)(A) and by substituting "80 percent" for "50 percent" with regard to the ownership of the stock of a C corporation in subsections (b)(2), (b)(8), (b)(10)(A) and (b)(12) of section 267.

*Example* (1). On February 1, 1986 X Corporation enters into a construction contract with Y. On November 1, 1987, X sells the assets of its division that was performing the contract to Z corporation. As part of the asset sale, Z agrees to perform all of X's obligations under the contract, and X assigns to Z all of its rights under the contract, including the right to all remaining payments under the contract. Y agrees to release X from its obligations under the contract, and Z becomes legally obligated to Y. There is no change in the terms of the contract. Thus, Z does not agree to perform any additional work that X was not obligated to perform, and no adjustment is made in the contract price that Y is obligated to pay. Because X's contract with Y was entered into prior to March 1, 1986, Z is not subject to section 460 in accounting for contract income and costs.

*Example* (2). The facts are the same as in Example (1), except that the terms of the contract (e.g., the total price to be paid by Y) are changed in connection with the transaction. Z is subject to section 460 in accounting for contract income and costs.

Q-11: Does section 460 apply to revenues and expenses attributable to a change order or other similar agreement entered into by the taxpayer and the customer after February 28, 1986 but relating to a contract entered into on or before that date?

## APPENDIX 9-B (CONTINUED)

A-11: A change order or other similar agreement entered into by the taxpayer and the customer after February 28, 1986, is subject to section 460 if it is treated as a separate contract under the rules for severing contracts described in Q&A-37 and Q&A-38.

*Example.* Y enters into a contract on February 1, 1986, with an agency of the Federal Government to build two submarines. On November 1, 1987, the customer and taxpayer agree to a change order providing for a third submarine of the same class to be built by Y. Because the change order is treated as a separate contract under the rules for severing contracts described in Q&A-37, Y must account for costs and income allocable to the third submarine in accordance with section 460.

Q-12: Is a contract considered to have been entered into even if the contract is subject to conditions that have not yet been met?

A-12: Yes. A contract is considered to have been entered into even if it is subject to conditions not within the control of the taxpayer that have not yet been met, so long as the contract is a binding contract under applicable law.

*Example.* On December 1, 1985, X, a builder, enters into a contract with Y to build a home. Although the contract is contingent on Y's obtaining financing, it is a binding contract under applicable law. Y obtains financing on March 1, 1986. The contract is not subject to section 460, because it was entered into before March 1, 1986, even though it was subject to a condition that was met on or after that date.

Q-13: If a taxpayer has failed to comply with section 460 with respect to one or more contracts entered into after February 28, 1986 for one or more tax years ending after that date, how should the taxpayer correct its method of accounting?

A-13: A taxpayer that has failed to comply with section 460 must change its method of accounting for long-term contracts to conform to section 460 under the following procedures. These procedures are to be used rather than the procedures provided in Rev. Proc. 84-74, 1984-2 C.B. 736. Under this notice, the taxpayer is directed to and is granted consent to conform its method of accounting to a method required under section 460, provided that (1) section 6501 (the applicable statute of limitations) would permit assessment of tax for all years for which the taxpayer has failed to report income and expenses in accordance with section 460, and (2) the taxpayer files amended returns for all such years.

If section 6501 would not permit assessment of tax for all tax years for which the taxpayer has failed to report income and expenses in accordance with section 460, then the taxpayer shall, pursuant to section 446, request the consent of the Commissioner to change its method of accounting for all contracts entered into after February 28, 1986 to a method required by section 460. Such change shall be effective for the earliest tax year for which section 6501 would permit assessment of tax. As a condition of such change, the taxpayer shall file amended returns for the year of change and all subsequent years. Any adjustment required under section 481 as a result of such change shall be taken into account under such terms as may be prescribed by the Commissioner.

### V. DETERMINATION OF WHETHER PERCENTAGE OF COMPLETION OR PERCENTAGE OF COMPLETION-CAPITALIZED COST METHOD IS TO BE USED

Q-14: What rules apply in determining whether the percentage of completion method of accounting rather than the percentage of completion-capitalized cost method of accounting is to be used by a taxpayer for a particular long-term contract entered into after February 28, 1986?

A-14: If, immediately prior to the effective date of section 460, the taxpayer used the percentage of completion method of accounting for all long-term contracts within a particular trade or business, then the taxpayer is required to use the percentage of completion method of accounting (as modified by section 460 and explained in Q&A-19 through Q&A-36) for all items of income from and all costs allocable to all long-term contracts within that trade or business entered into after February 28, 1986, unless the taxpayer has obtained the consent of the Commissioner to use a different method of accounting.

If, immediately prior to the effective date of section 460, a taxpayer used a method of accounting other than the percentage of completion method for all long-term contracts within a particular trade or business, then the taxpayer shall use the percentage of completion-capitalized cost method for all long-term contracts within that trade or business (other than contracts exempt under section 460(e)(1)) entered into after February 28, 1986, unless one of the following conditions is met: (1) the taxpayer has changed its method of accounting to the percentage of completion method (e.g., pursuant to Notice 87-61, 1987-2 C.B. Unable to recognize this page. Unable to recognize this page. 370, or Notice 88-66, 1988-1 C.B. 552, or Q&A-47) for all items under all longterm contracts within that trade or business entered into after February 28, 1986; (2) the taxpayer has changed its method of accounting (e.g., pursuant to Notice 88-66 or Q&A-47) to the percentage of completion method for all items under all long-term contracts within that trade or business entered into after October 13, 1987; or (3) the taxpayer has changed its method of accounting (e.g., pursuant to Q&A-47) to the percentage of completion method for all long-term contracts entered into after June 20, 1988; or (4) the taxpayer has obtained the consent of the Commissioner to use a different method of accounting.

Immediately prior to the effective date of section 460, under section 1.451-3(a)(1) of the regulations, some taxpayers were permitted to use the percentage of completion method for certain long-term contracts within a particular trade or business, but to use another method of accounting for other long-term contracts within that trade or business. For example, the taxpayer might have used the percentage of completion method for long-term contracts of substantial duration and an accrual method for long-term contracts of less than substantial duration. Such a taxpayer must use the percentage of completion method, as modified by section 460, to account for all items under all long-term contracts entered into after February 28, 1986 that are of a duration such that they would have been accounted for under the percentage of completion method, based on the standards applied by the taxpayer, prior to the effective date of section 460. Such a taxpayer must use the percentage of completion-capitalized cost method to account for all items under all long-term contracts entered into after February 28, 1986 that are of a duration such that they would have been accounted for under a method other than the percentage of completion method, based on the standards applied by the taxpayer prior to the effective date of section 460. The requirements of the two preceding sentences shall apply unless the taxpayer has changed to the percentage of completion method pursuant to Notice 87-61, Notice 88-66, or Q&A-47, or has obtained the consent of the Commissioner.

### VI. PERCENTAGE OF COMPLETION-CAPITALIZED COST METHOD

Q-15: Under the percentage of completion-capitalized cost method, when are items of revenue from and items of cost allocable to a long-term contract taken into account?

A-15: Under the percentage of completion-capitalized cost method of accounting, a certain percentage of each item of revenue and each item of cost is taken into account at the time that such item would be taken into account using the percentage of completion method for the contract, and the remaining percentage is taken into account at the time that such item would be taken into account using the taxpayer's "normal" method of accounting for the contract. The percentage of each item to be taken into account under each of these two methods of accounting depends on the date that the contract was entered into. For contracts entered into after February 28, 1986, but before October 14, 1987, 40 percent of each item of revenue or cost is taken into account under the

# APPENDIX 9-B (CONTINUED)

percentage of completion method and the remaining 60 percent is taken into account under the taxpayer's normal method of accounting (the "40/60 method"). In general, for contracts entered into after October 13, 1987, but before June 21, 1988, 70 percent of each item of revenue or cost is taken into account under the percentage of completion method and the remaining 30 percent is taken into account under the taxpayer's normal method of accounting (the "70/30 method"). In general, for contracts entered into on or after June 21, 1988, 90 percent of each item of revenue or cost is taken into account under the percentage of completion method and the remaining 10 percent is taken into account under the taxpayer's normal method of accounting (the "90/10 method").

The following exceptions apply to these general rules, however. First, certain ship contracts described in section 10203 of the Revenue Act of 1987 entered into after October 13, 1987, are not required to be accounted for under either the 70/30 method or the 90/10 method. Such ship contracts are required to be accounted for using either the percentage of completion method or the 40/60 method. Second, "residential construction contracts" entered into on or after June 21, 1988, are not required to be accounted for under the 90/10 method. Unless they meet the requirements of section 460(e)(1)(B), such residential construction contracts are required to be accounted for under either the percentage of completion method or the 70/30 method. Third, a contract is not required to be accounted for under the 90/10 method if the contract results from the acceptance of a bid made before June 21, 1988, and the bid could not have been revoked or altered at any time on or after June 21, 1988. Fourth, except for the interest capitalization requirements of section 460(c)(3), section 460 does not apply to any "home construction contract" entered into after June 20, 1988. Unless such a contract meets the requirements of section 460(e)(1)(B), the uniform capitalization rules of section 263A and the regulations thereunder will apply to it. See Q&A-41 through Q&A-44 for definitions and rules relating to "residential" and "home" construction contracts. See Q&A-46 for rules relating to the application of the alternative minimum tax to long-term contracts described in section 460(e).

Q-16: In applying the percentage of completion-capitalized cost method of accounting, is a taxpayer permitted to reduce the amount of contract revenue required to be taken into account in a particular year under the taxpayer's normal method of accounting by the amount of contract revenue taken into account under the percentage of completion method in that year and previous years?

A-16: No. The amount of contract revenue taken into account in a particular year under the taxpayer's normal method of accounting is not affected by the amount of contract revenue required to be taken into account in any year under the percentage of completion method. Similarly the amount of contract revenue taken into account under the percentage of completion method is not affected by the amount of contract revenue taken into account in any year under the taxpayer's normal method.

*Example.* After October 13, 1987, but before June 21, 1988, X enters into a long-term contract that is accounted for under the percentage of completion-capitalized cost method using the 70/30 method. X's normal method of accounting is an accrual method. Assume that is X were using the percentage of completion method for the contract, X would be required to take into account $500,000 of contract revenue in 1988. Assume that if X were using the accrual method, X would be required to take into account $200,000 of contract revenue in 1988. Under the percentage of completion-capitalized cost method, X is required to take into account the following amounts of contract revenue in 1988: 70 percent of $500,000 or $350,000, plus 30 percent of $200,000, or $60,000, for a total of $410,000.

Q-17: How should a taxpayer that (i) uses the percentage of completion-capitalized cost method of accounting, with an accrual method as its normal method, and (ii) uses the dollar value last-in, first-out (LIFO) method of valuing its inventories apply the LIFO method to value inventories in a pool that includes items being produced under a long-term contract?

A-17: The taxpayer should include in inventory only that percentage of each unit being produced under a long-term contract that is equal to the percentage (60%, 30%, or 10%) of income and costs for such contract that is accounted for under the taxpayer's normal method. To the extent that raw materials included in the pool have been dedicated to a long-term contract, only that portion of such raw materials that is equal to such fraction (i.e., 60%, 30%, or 10%) should be treated as remaining in inventory. Thus, inventory will include fractional units of raw materials, goods in process, and finished goods (as well as whole units if the same pool includes items that are not being produced under a long-term contract).

The following example illustrates the use of the dollar-value LIFO inventory method in conjunction with the percentage of completion-capitalized cost method for long-term contracts:

*Example.* X is engaged in the manufacture of a single type of metal component for customers in the aerospace industry. The metal component normally takes more than 12 months to manufacture. Since it began business, X sold metal components to customers only from its inventory of finished goods. However, for financial reasons, X modified this practice in 1987 and decided to obtain contracts from a customer in some cases prior to completing the manufacture of a component. X continued to manufacture and sell approximately one-half of its components without first obtaining a contract.

X uses a calendar-year tax year and an overall accrual method to report taxable income. X accounts for the cost of its inventory using the dollar-value LIFO inventory method and the natural business unit pooling method. X uses the double-extension method to compute its LIFO index. X's metal components consist of one type of raw material and each finished component requires 6 units of raw material and 10 units of labor. X's unit costs are determined on a fully capitalized basis and, therefore, reflect all indirect costs required to be capitalized. Moreover X does not incur research and experimental expenses and consequently, its unit costs for items produced under a contract and for items sold from inventory do not differ.

Assume that since the year X began business, X's ending inventory has always consisted of 20 units of raw material, two half-completed components in work-in-process and two completed components. Thus at the beginning of 1987 the LIFO value of X's inventory equals the base-year cost of these items and accordingly represents a single LIFO layer accumulated in the base year as shown below in Table 1.

(Note: In the following tables "M" represents materials and "L" represents labor.)

TABLE 1

1987 Beginning Inventory:

| | | Units | | Base-year Cost | | |
|---|---|---|---|---|---|---|
| | | M Value | L Value | | | |
| | % | M | L | ($5 x Unit) | ($10 x Unit) | Total |
| Raw Material | 100% | 20 | — | $100x | — | $100x |
| Work-in-process: | | | | | | |
| Noncontract C | 100% | 3 | 5 | 15x | 50x | 65x |
| Noncontract D | 100% | 3 | 5 | 15x | 50x | 65x |
| Finished Goods: | | | | | | |
| Noncontract A | 100% | 6 | 10 | 30x | 100x | 130x |
| Noncontract B | 100% | 6 | 10 | 30x | 100x | 130x |
| Total Base-year cost = Total LIFO value | | | | | | $490x |

At the end of 1987, X's physical inventory consisted of the same number of components at the same stages of completion. However, the two components carried in ending work-in-process, which were one-half completed (Contract E, entered into in September 1987, and Contract F, entered into in November 1987) were being manufactured under long-term contracts that are subject to section 460.

## APPENDIX 9-B (CONTINUED)

Because X's components normally require more than 12 months to complete, X's contracts to manufacture the component meet the definition of a long-term contract under section 460(f) of the Code. Assuming that X uses an accrual method as its normal method of accounting for long-term contracts, X must account for the cost of components manufactured under a contract using the percentage of completion-capitalized cost method and, therefore, must apply the dollar-value LIFO inventory method to less than 100 percent (i.e., 60%, 30%, or 10% depending on the date each particular long-term contract is entered into) of the cost of each of these components. Accordingly, assuming again that the volume and mix of raw materials, unfinished components and finished components remains unchanged at the end of 1987, the LIFO value of X's ending inventory will change because X is required by the operation of section 460 to include only a percentage of the cost of components manufactured under a long-term contract in its dollar-value LIFO pool as shown below in Table 2. Note, however, that X does not remove a percentage of the cost of any of the 20 units of raw material from the LIFO pool until those units are dedicated to one of its long-term contracts. See Q&A-35.

TABLE 2

1987 Ending Inventory:

| | Units | | | Base-year Cost | | |
|---|---|---|---|---|---|---|
| | % | M Value M | L Value L | ($5 x Unit) | ($10 x Unit) | Total |
| Raw Material | 100% | 20 | — | $100x | — | $100x |
| Work-in-process: | | | | | | |
| Contract E-9/87 | 60% | 1.8 | 3.0 | 9x | 30x | 39x |
| Contract F-11/87 | 30% | .9 | 1.5 | 4.5x | 15x | 19.5x |
| Finished Goods: | | | | | | |
| Noncontract C | 100% | 6 | 10 | 30x | 100x | 130x |
| Noncontract D | 100% | 6 | 10 | 30x | 100x | 130x |
| Total Base-year cost | | | | | | $418.5x |
| Beginning-of-year Base-year cost | | | | | | 490.0x |
| Decrement in LIFO value | | | | | | (71.5x) |
| Total LIFO value of ending inventory | | | | | | $418.5x |

For contracts entered into after the effective date of the 1988 Act (June 20, 1988), X must, for purposes of pricing the items in its dollar-value pool, further reduce the percentage of long-term contract items taken into account to 10 percent. Table 3 reflects the sale of Noncontract items C and D; the inclusion in work in process of the partially completed Contract G, entered into in July 1988, and the partially completed Noncontract item H; and the inclusion in finished goods of Noncontract items I and J, which were started and completed in 1988. Notwithstanding the fractional inclusion of components manufactured under long-term contracts, an increment in X's LIFO pool occurs in 1988 because one fractional component included in 1987 work in process is replaced by a whole component that is being manufactured without a long-term contract.

TABLE 3

1987 Ending Inventory:

| | Units | | | Current-year Cost | | |
|---|---|---|---|---|---|---|
| | % | M Value M | L Value L | ($20 x Unit) | ($40 x Unit) | Total |
| Raw Material | 100% | 20 | — | $400x | — | $400x |
| Contract G-7/88 | 10% | .3 | .5 | 6x | 20x | 26x |
| Noncontract H | 100% | 3.0 | 5.0 | 60x | 200x | 260x |
| Finished Goods: | | | | | | |
| Noncontract I | 100% | 6.0 | 10 | 120x | 400x | 520x |
| Noncontract J | 100% | 6.0 | 10 | 120x | 400x | 520x |
| Total Current-year cost | | | | | | $1726x |

| | Units | | | Base-year Cost | | |
|---|---|---|---|---|---|---|
| | % | M Value M | L Value L | ($5 x Unit) | ($10 x Unit) | Total |
| Raw Material | 100% | 20 | — | $100x | — | $100x |
| Work-in-process: | | | | | | |
| Contract G-7/88 | 10% | .3 | .5 | 1.5x | 5x | 6.5x |
| Noncontract H | 100% | 3.0 | 5.0 | 15x | 50x | 65x |
| Finished Goods: | | | | | | |
| Noncontract I | 100% | 6 | 10 | 30x | 100x | 130x |
| Noncontract J | 100% | 6 | 10 | 30x | 100x | 130x |
| Total Base-year cost | | | | | | $431.5x |
| Beginning Inventory-Base-year cost | | | | | | 418.5x |
| Increment—Base-year cost | | | | | | 13.0x |
| LIFO Index = $1726 x /$431.5 x x 4 | | | | | | |
| LIFO value of increment = 4 x $13.0 = | | | | | | 52.0x |
| Ending Inventory LIFO value | | | | | | $470.5x |

As Table 3 demonstrates, the interaction of section 460 and the LIFO inventory method of accounting can cause changes in the value of LIFO layers, even if there is no change in the physical content of raw materials, work in process, and finished goods.

Q-18: What is meant by a taxpayer's "normal" method of accounting?

A-18: In general, a taxpayer's normal method of accounting is the method of accounting that the taxpayer used immediately prior to the effective date of section 460 to account for its long-term contracts within a particular trade or business. This method of accounting might have been, for example, the completed contract method provided by section 1.451-3(d) of the regulations, the cash method, an accrual method such as the accrual shipment, or accrual delivery method.

If, however, the taxpayer has been required by law or has obtained the consent of the Commissioner to change from its normal method to a new method of accounting, then the new method is treated as the taxpayer's normal method of accounting. For example, section 263A may require a change in the taxpayer's normal method of accounting. Similarly, section 448 may require a taxpayer that

## APPENDIX 9-B (CONTINUED)

used the cash method of accounting for long-term contracts immediately prior to the effective date of section 460, to change from the cash method to another method of accounting pursuant to section 448. In this case, that other method of accounting becomes the taxpayer's normal method of accounting for purposes of applying the percentage of completion-capitalized cost method. Although section 448 generally requires that certain taxpayers change from the cash to the accrual method, section 1.448-1T(h)(3) of the regulations may permit a change to the completed contract method in certain cases.

VII. PERCENTAGE OF COMPLETION METHOD

Q-19: Under the percentage of completion method, what portion of the total price under a particular contract is required to be included in gross income in a particular taxable year?

A-19: Under the percentage of completion method, the taxpayer must include in gross income in each taxable year ending after the date that the contract is entered into an amount equal to the excess of (1) the product of (a) the total amount of revenue that the taxpayer estimates it will receive with respect to the contract, multiplied by (b) the cumulative percentage of the contract that has been completed as of the end of the taxable year, over (2) the total cumulative amount of contract revenue required to be included in gross income in all preceding taxable years. This amount may be expressed by the following formula:

(TCR x PC)—I

where

TCR = the total amount of revenue that the taxpayer expects to receive with respect to the contract;

PC = the cumulative percentage of the contract that has been completed as of the end of the taxable year;

I = the total cumulative amount of contract revenue required to be included in gross income in all preceding taxable years.

It should be noted that total estimated contract revenues may be different for the different years of the contract. See Q&A-24. If the total cumulative amount of contract revenue required to be included in gross income in all preceding taxable years exceeds the product of total expected contract revenues for the taxable year multiplied by the cumulative percentage of the contract completed as of the end of the taxable year, then the taxpayer shall be permitted to deduct the excess as a loss for the taxable year. This may occur, for example, as a result of increases in total estimated contract costs occurring after the end of the tax year in which the contract is entered into.

Q-20: How does a taxpayer determine the percentage of the contract that has been completed as of the end of the taxable year?

A-20: Unless the taxpayer uses the simplified method described in Q&A-22 and Q&A-23, the percentage of the contract considered completed as of the end of the taxable year is equal to the ratio of (a) the total cumulative amount of costs allocable to the contract and incurred in the taxable year and in all preceding taxable years, to (b) the total amount of costs allocable to the contract that the taxpayer expects to incur. The total estimated contract costs may be different for the different years of the contract. See Q&A-24.

Q-21: Should a taxpayer that properly uses the cash method as its over-all method of accounting treat a cost as incurred in the taxable year in which it is paid for purposes of determining the total amount of costs allocable to the contract incurred in a particular taxable year?

A-21: No. Section 460 provides that, in determining percentage of completion, costs are taken into account in the taxable year that they are incurred, regardless of the taxpayer's over-all method of accounting. Similarly, under the percentage of completion method, costs allocable to the contract are deductible in the year incurred, regardless of the taxpayer's overall method of accounting. For this purpose, an item is treated as incurred when it would properly be taken into account under an accrual method of accounting, including the rules of section 461(h). See Q&A-33 through Q&A-35 for further discussion.

Q-22: How is percentage of contract completion determined under the simplified method?

A-22: Under the simplified method, only certain costs are used in determining both (i) costs allocated to the contract and incurred before the close of the taxable year, and (ii) total estimated contract costs. These costs are: (a) direct material costs and direct labor costs, and (b) depreciation, amortization and cost recovery allowances on equipment and facilities (to the extent allowable as deductions under Chapter 1 of the Code) directly used to construct or produce the subject matter of the long-term contract. Direct material costs include the costs of materials such as raw materials, land, equipment and components that become an integral part of the subject matter of a long-term contract and the costs of those materials that are consumed in the ordinary course of building, constructing, installing, or manufacturing the subject matter of a long-term contract.

Q-23: Which taxpayers may use the simplified method?

A-23: The simplified method may be used by taxpayers using the percentage of completion method for all items under all long-term contracts in a particular trade or business. A taxpayer that, pursuant to Q&A-14, uses the percentage of completion method for long-term contracts of substantial duration and the percentage of completion-capitalized cost method for long-term contracts of less than substantial duration, may not use the simplified method for its long-term contracts of substantial duration.

A taxpayer using the percentage of completion-capitalized cost method that properly uses the cash method as its normal method of accounting may also use the simplified method. However, any such taxpayer must automatically change from the simplified method for the first taxable year, that the taxpayer is required to change from the cash method under any provision of law, including section 448, unless the taxpayer properly changes its method of accounting to the percentage of completion method for all items under all long-term contracts in its trade or business.

Use of the simplified method is a method of accounting and may not be revoked without the consent of the Commissioner. The Commissioner may, by revenue procedure, or other administrative pronouncement, permit taxpayers to adopt the simplified method without obtaining consent. See, e.g., Notice 87-61.

Q-24: In determining percentage of completion for a particular taxable year, when are total contract costs and total contract revenues to be estimated?

A-24: Total contract revenue and total contract costs are to be estimated based on the facts and reasonable estimates as of the last day of the taxable year. Events that occur after the end of the taxable year that were not reasonably subject to estimate as of the last day of the taxable year are not taken into account.

*Example.* X, a calendar year taxpayer, enters into a long-term contract on January 1, 1987. Based on the facts as of December 31, 1987, X reasonably estimates that total contract revenue will be $10m and total contract costs will be $5m. X's employees go on strike in February, 1988, causing X to increase its estimate of total contract costs to $6m. After the strike is settled, X receives an order from the customer for additional work under the contract. Assume that this order would not be treated as a separate contract under the rules for severing contracts sets forth in Q&A-37. Based on this order, X increases its estimate of total contract costs to $8m, and increases its estimate of total contract revenues to $15m. In applying the percentage of completion method to determine the amount of contract revenue required to be included in gross income in 1987, reasonable estimates of total contract revenue and costs based on the facts as of December 31, 1987, are to be used. Revisions to these estimates based on the strike and the change order occurring in 1988 are not taken into account even though these revisions were made before X filed its tax return for 1987.

Q-25: Are contingency allowances for extraordinary costs to be included in total

## APPENDIX 9-B (CONTINUED)

estimated contract costs for purposes of computing percentage completion?

A-25: Total estimated contract costs do not include any contingency allowance for costs that, as of the end of the year for which the estimate is made, are unforeseeable or extraordinary and are not reasonably expected to be incurred in the performance of the contract. Thus, for example, total estimated costs do not include costs attributable to abnormal factors not reasonably foreseeable as of the end of the tax year for which the estimate is made, such as prolonged third-party litigation, abnormal weather conditions (considering the season and the job site), prolonged strikes, and prolonged delays in securing required permits and licenses, and other factors that, as of the end of the year for which the estimate is made, could not be reasonably anticipated considering the nature of the contract and prior experience of the taxpayer.

Q-26: Are estimated costs of performing other contracts (such as "follow-on contracts") that the taxpayer expects to enter into with the same customer as a result of having entered into a particular contract included in total estimated contract costs for the initial contract?

A-26: No. The estimated costs of performing such a contract are not included in total estimated contract costs for the initial contract unless the contract would not be treated as a separate contract under the severing and aggregating rules described in Q&A-37.

Q-27: For purposes of applying the percentage of completion method, are "retainages" and "holdbacks" included in total expected contract revenues?

A-27: Yes. All amounts that the taxpayer is or will be entitled to receive from the customer under the contract, or any other rule of law (including, for example, the contract law rule of quantum merit, or other quasi-contractual remedies) must be included in total expected contract revenues, including amounts, such as retainages, that the customer has contracted to pay only upon satisfactory completion of the contract. (See also section 460(b)(2)(B), which requires that such amounts, including amounts received after contract completion, be included in total contract price for purposes of applying the look-back rule.)

Q-28: For purposes of applying the percentage of completion method, does a taxpayer include in total expected contract revenues award fees and similar incentive payments that the taxpayer is entitled to receive under the contract if certain requirements, in addition to satisfactory completion and acceptance, are met?

A-28: Payments such as award fees, or incentive payments, are to be included in total expected contract revenues at the time and to the extent that the taxpayer can reasonably predict that the corresponding performance objectives will be met.

Q-29: If a taxpayer incurs costs allocable to a contract in a taxable year ending prior to the date that the contract is entered into, does the percentage of completion method require inclusion of any portion of the expected contract revenue in gross income in such prior taxable year?

A-29: No. Under the percentage of completion method the taxpayer is not required to include any amount in gross income in any taxable year ending prior to the date that a contract is entered into even if costs allocable to the contract are incurred in such a taxable year. With respect to costs incurred in a taxable year prior to the year a contract is entered into, if (i) it is reasonably foreseeable at the time that the costs are incurred that they relate to a long-term contract that will be entered into during a future year, and (ii) the costs are of a nature such that they would otherwise be allocable to the contract under section 460(c), then such costs are to be capitalized in the year in which they are incurred. If, in contrast, it is not reasonably foreseeable at the time that costs are incurred that they relate to a long-term contract that will be entered into during a future year, then such costs are to be accounted for and capitalized under the provisions of section 263A (if such costs are incurred in a taxable year to which section 263A applies). In either case, in the subsequent year in which the contract is entered into, all such costs are to be allocated to the contract and taken into account in determining the completion percentage and, thus, in determining the amount of contract revenue required to be taken into account in the subsequent taxable year in which the contract is entered into. See Q&A-36, which provides for the time for deducting such costs.

Q-30: For the purpose of computing percentage of completion, are nondeductible costs taken into account in determining (i) expected total costs allocable to a contract, or (ii) costs allocable to a contract and incurred through the end of the taxable year?

A-30: No. For these purposes, nondeductible costs are not taken into account, even if otherwise allocable to a contract under section 460(c) and Q&A-39 and Q&A-40. Thus, for example, the following costs would not be taken into account in computing percentage of completion: (i) any payments disallowed under section 162(c); and, (ii) meals and entertainment costs disallowed under section 274.

Q-31: Under the percentage of completion method, what is the treatment of amounts received or to be received by the taxpayer from the customer as reimbursements for costs incurred in performing a long-term contract?

A-31: These reimbursements are included in total contract price in determining the amount included in gross income in the taxable year under the percentage of completion method. Similarly, reimbursed costs allocable to a contract that have been incurred by the taxpayer are treated as contract costs in determining percentage of completion for the taxable year in which such costs are incurred. See Q&A-32 and Q&A-33.

Q-32: How are costs that are allocable to a contract taken into account under the percentage of completion method?

A-32: Under the percentage of completion method, costs that are allocable to a contract are allowable as deductions from gross income in computing taxable income in the year in which they are incurred. The preceding sentence shall not apply if such costs are disallowed permanently under any provision of the Code or regulations, including, for example, section 162(c) or section 274.

Q-33: Under the percentage of completion method, when is a cost that is allocable to a long-term contract treated as incurred, and therefore as deductible and taken into account in computing percentage of completion for the taxable year?

A-33: Regardless of the taxpayer's overall method of accounting, contract costs generally are treated as incurred in the taxable year in which the "all events" test of section 461 and section 1.461-1(a)(2) of the regulations, as modified by section 461(h), is met. Thus, costs that are not treated as incurred as of the end of the taxable year for failure to satisfy the economic performance rules of section 461(h) are not deductible. Similarly, such costs are not treated as contract costs incurred through the end of the taxable year in determining percentage of completion (although those costs are taken into account in determining total expected contract costs). See Q&A-35 for rules relating to the time at which costs of direct materials and supplies are allocable to a contract.

Q-34: When are the costs of materials and supplies deductible under the percentage of completion method?

A-34: These costs are deductible under the percentage of completion method for the first taxable year in which the costs both are allocable to the contract and have been incurred. See Q&A-33 for rules as to when a cost that is allocable to a contract are treated as incurred. See Q&A-35 for rules as to when costs of materials and supplies are allowable to a contract.

Q-35: When are costs of direct materials and supplies treated as allocable to the contract under the percentage of completion method?

A-35: The costs of direct materials and supplies that are purchased specifically for a particular long-term contract are allocable

## APPENDIX 9-B (CONTINUED)

to the contract in the taxable year in which such costs are incurred. The costs of other direct materials and supplies (such as those previously held by the taxpayer) are allocable to the contract in the taxable year in which such materials and supplies are dedicated to the contract. Examples of dedication include the following: (i) delivery of materials to a job site (if only one contract is being performed at that site); (ii) association of materials with a specific contract (for example, by purchase order, entry on books and records, or shipping instructions); and, (iii) if not previously assigned, the physical incorporation of the materials into the subject matter of the contract, or the consumption of the materials in the production of the subject matter of the contract. The cost that is allocated to a contract is to be determined using the taxpayer's method of accounting for such materials or supplies (e.g., specific identification, FIFO, or LIFO) based on the taxable year in which such items are dedicated to the contract.

Q-36: When are costs that are allocable to a long-term contract, but are incurred prior to the date that the contract is entered into, deductible and taken into account for purposes of determining degree of contract completion?

A-36: Such costs are treated as allocated to the contract and are deductible in the taxable year in which the contract is entered into. These costs might include, for example, bidding and proposal costs allocable to the contract, raw land purchased before a construction contract was entered into, and labor costs incurred in anticipation that a contract will be awarded. See Q&A-29 regarding accounting for income attributable to such costs.

Example. In 1988 X Corporation, a calendar year taxpayer using the percentage of completion method, incurs costs to prepare a bid and proposal prepare a bid and proposal for a manufacturing contract with an agency of the United States government. In anticipation that the contract will be awarded, X also begins work in 1988 to produce the property that is expected to be the subject matter of the contract, incurring labor, materials, storage costs incurred to store the raw materials, and other costs allocable to this property under section 263A and the regulations thereunder. Then, on February 1, 1989, the contract is awarded and becomes legally binding on both the taxpayer and the agency. None of the bidding and proposal costs are deductible in 1988. Similarly, none of the other costs allocable to the property that is expected to be the subject matter of the contract are deductible in 1988. All of these costs are allocated to the contract on February 1, 1989. Therefore, all of these costs (bidding and proposal cost, as well as labor, materials, storage costs incurred to store the raw materials, and indirect costs allocable under section 263A to the property that is expected to be the subject matter of the contract) are deductible by X in 1989, and are taken into account by X in determining percentage of completion for 1989.

### VIII. SEVERING AND AGGREGATION OF CONTRACTS

Q-37: What standards apply in determining whether an agreement should be treated as more than one contract ("severed"), or whether two or more agreements should be treated as a single contract ("aggregated") under section 460(f)(3)?

A-37: Except as provided in Q&A-38, the rules set forth in section 1.451-3(e) of the regulations apply in making this determination.

Q-38: May the taxpayer sever and aggregate contracts, or may such action be taken only by the Commissioner?

A-38: Under section 460(f)(3), a taxpayer is permitted and required to sever and aggregate contracts, notwithstanding the statement to the contrary in section 1.451-3(e)(1)(i)(C) of the regulations, which does not apply to contracts subject to section 460 and this Notice. Forthcoming regulations may require any taxpayer that severs or aggregates contracts under this Q&A-38 to attach a statement to its Federal income tax return for the first year in which it has entered into two or more agreements that are properly treated as a single contract, or a single agreement that is properly treated as more than one contract. If required, such a statement would describe the criteria used by the taxpayer in determining to sever or aggregate the agreements.

### IX. ALLOCATION OF COSTS TO CONTRACTS

Q-39: What costs are required to be allocated to a long-term contract?

A-39: All costs (including, where applicable, research and experimental costs and interest costs) that directly benefit or are incurred by reason of the long-term contract activities of the taxpayer must be allocated to those contracts in the same manner that costs are allocated to extended period long-term contracts under section 1.451-3(d) of the regulations. For purposes of section 460(c), costs included in the preceding sentence and thus allocated to long-term contracts include all storage, handling, and processing costs incurred with respect to the long-term contract activities of the taxpayer. (See section 263A and the regulations thereunder for definitions of storage, handling, and processing costs.) Moreover, in the case of a cost-plus long-term contract or a Federal long-term contract, any cost not otherwise allocated to the contract under the general rule of the preceding sentence shall be allocated to the contract if the cost is identified by the taxpayer (or a related person) as being attributable to such contract, pursuant to the contract or any Federal, State, or local law or regulation. If, under a Federal or a cost-plus contract, the costs identified under the contract include a charge for the time value of money, that amount shall be treated as allocable to the contract without regard to whether the property produced is "qualified" property (as defined in Notice 88-99) with respect to which interest is required to be capitalized under section 460(c)(3).

The following costs are not subject to the rules of section 460 and are not allocable to long-term contracts: independent research and development expenses (as defined in section 460(c)(5)); expenses for unsuccessful bids and proposals; and marketing, selling and advertising expenses. Therefore, such costs are not taken into account in determining degree of contract completion under the percentage of completion method, and no portion of such costs is required to be capitalized under the percentage of completion-capitalized cost method by a taxpayer using the completed contract method as its normal method of accounting.

The use, direct or indirect, of the practical capacity concept to account for the costs required to be allocated to long-term contracts is not permitted. The practical capacity concept is defined as any concept, method, procedure, or formula (such as the practical capacity concept described in section 1.471-11(d)(4) of the regulations) whereunder fixed costs are not capitalized or allocated to a contract because of the relationship between the actual production at the taxpayer's production facility and the "practical capacity" of such facility. For this purpose, the practical capacity of a facility shall include either the practical capacity or theoretical capacity of the facility (as defined in section 1.471-11(d)(4) of the regulations), or any other similar determination of productive or operating capacity.

Q-40: What methods are available in accounting for the indirect costs required to be allocated to long-term contracts?

A-40: The indirect costs required to be allocated to a long-term contract must be allocated to particular contracts using either a specific identification (or "tracing") method, the standard cost method, or a method using burden rates (such as ratios based on direct costs, hours, or other items, or similar formulas), so long as the method employed for such allocation reasonably allocates indirect costs among long-term contracts. The method used by the taxpayer to allocate a particular cost must be applied consistently with respect to all long-term contracts of the taxpayer. An allocation method will not be considered to be reasonable if the method does not result in the allocation (and, to the extent applicable, the capitalization) of all costs that directly benefit or are incurred by reason of the performance of the taxpayer's long-term contract activities. The taxpayer shall account for each long-term contract separately and, except as provided, both the direct and indirect costs incurred during the taxable year

# APPENDIX 9-B (CONTINUED)

attributable to long-term contract activities shall be allocated to particular long-term contracts for the taxable year such costs are incurred. See Q&A-35 for special rules relating to when a cost is allocable to a contract.

## X. TREATMENT OF CERTAIN CONSTRUCTION CONTRACTS

Q-41: What is a "residential construction contract" for purposes of section 460?

A-41: The term "residential construction contract" means any contract if 80 percent or more of the total estimated contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to the building, construction, reconstruction, or rehabilitation of (i) dwelling units, and (ii) improvements to real property directly related to such dwelling units and located on the site of such dwelling units. All costs that are attributable to the building, construction, reconstruction, or rehabilitation under the contract of such dwelling units and improvements and that are allocable to the contract, including costs of materials and raw land, are taken into account towards meeting the 80-percent test. In the case of a contract to construct a mixed-use building (e.g., a building expected to contain both apartments and offices), the portion of costs that is attributable to construction of dwelling units (and improvements directly related to such dwelling units) is equal to the sum of (i) all costs that are attributable solely to the dwelling units (and directly related improvements), and (ii) a pro rata portion of all costs other than costs either solely attributable to the dwelling units (and directly related improvements) or solely attributable to other uses of the building (and directly related improvements). The pro rata apportionment shall be based on the relative amount of space in the building expected to be used for dwelling units. Thus, for example, if 50 percent of the total space in a mixed-use building is expected to be used for apartments, then 50 percent of the cost of land would be considered attributable to dwelling units. However, all of the expected cost of appliances to be installed only in the apartments would be considered attributable to dwelling units, because this cost is attributable solely to dwelling units.

For purposes of this Q&A-41 and for purposes of Q&A-43, the term dwelling unit has the same meaning as in section 167(k)(3)(C). Thus, a dwelling unit is a house or apartment used to provide living accommodations in a building or structure, but does not include a unit in a hotel, motel, inn, or other establishment more than one-half of the units of which are used on a transient basis.

Q-42: Which long-term contracts are exempt under section 460(e) from the requirements of section 460?

A-42: Section 460(e) provides that, except for the interest capitalization requirement of section 460(c)(3), the rules of section 460 do not apply to (1) any home construction contract entered into after June 20, 1988, and (2) any other construction contract entered into by a taxpayer (i) who estimates (at the time such contract is entered into) that such contract will be completed within the 2-year period beginning on the commencement date of such contract, and (ii) whose average annual gross receipts for the 3 taxable years preceding the year in which such contract is entered into do not exceed $10 million.

Thus, except for the interest capitalization requirements of section 460(c)(3), the law in effect before the enactment of section 460 applies to any contract described in clause (2) of the preceding paragraph, regardless of whether the contract involves the construction of a home or of commercial property. In the case of a home construction contract that is not described in clause (2) of the pre ceding paragraph (i.e., a contract that is not expected to be completed within two years of the commencement date, or a contract entered into by a taxpayer whose average annual gross receipts exceed $10 million), the provisions of section 263A and the regulations there under apply, except that the interest capitalization requirements specifically provided in section 460(c)(3) also apply For purposes of clause (2) of the preceding paragraph, a construction contract is any contract for the building, construction, reconstruction, or rehabilitation of, or the installation of any integral component to, or improvements of, real property. Whether a particular contract is a construction contract under this definition is to be determined by applying the rules set forth in section 1.451-3(b)(3)(ii) of the regulations and Q&A-4.

Q-43: What is a "home construction contract" for purposes of section 460(e)?

A-43: For purposes of section 460(e) the term "home construction contract" means any construction contract if 80 percent or more of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to the building, construction, reconstruction, or rehabilitation of (i) dwelling units (within the meaning of section 167(k)) contained in buildings (with each townhouse or rowhouse treated as a separate building) containing four or fewer units, and (ii) improvements to real property directly related to such dwelling units and located at the site of such dwelling units. All costs attributable to the building, construction, reconstruction, or rehabilitation under the contract of such dwelling units and improvements, and allocable to the contract, including costs of materials and land, are taken into account towards meeting the 80-percent test. For the treatment of a mixed-use building, see Q&A 41.

Q-44: For purposes of the 80-percent tests of Q&A-41 and Q&A-43, can costs that a developer expects to incur to construct, build, or install roads, sewers, and other common features not located on the sites of dwelling units ("off-site work") be treated as attributable to dwelling units that the developer is constructing under contract?

A-44: Yes. Assume, for example, that a developer enters into a contract for the construction and sale of a house. The costs of off-site work properly allocable to this contract are treated as attributable to the construction of the house for purposes of the 80-percent test.

Q-45: What rules apply in determining the gross receipts that are to be taken into account in applying section 460(e)(1)(B)?

A-45: For purposes of applying section 460(e), the taxpayer must take into account the gross receipts of (i) all trades or businesses (regardless of the nature of such trades or businesses) under common control with the taxpayer (within the meaning of section 52(b)), and (ii) all members of any controlled group of corporations of which the taxpayer is a member. For purposes of this determination, the term "controlled group of corporations" has the meaning given to such term by section 1563(a), except that "more than 50 percent" shall be substituted for "at least 80 percent" each place it appears in section 1563(a)(1), and the determination shall be made without regard to paragraphs (a)(4) and (e)(3)(C) of section 1563.

Persons are treated as members of controlled groups within the meaning of section 1563(a), regardless of whether such persons would be treated as "component members" of such group under section 1563(b). (See section 1.52-1(c) of the regulations.) Thus, for example, the gross receipts of a franchised corporation or a foreign corporation that is treated as an excluded member for purposes of section 1563(b) would be included for purposes of the aggregation rules of the gross receipts test under section 460(e) if the corporation and the taxpayer are members of the same controlled group under section 1563(a).

With respect to the group of persons ("members") the gross receipts of which are included in the calculation of the taxpayer's gross receipts for a taxable year, the gross receipts of the taxpayer are determined by aggregating the gross receipts of all members of the group, excluding gross receipts attributable to transactions occurring between such members. Moreover, in determining the

## APPENDIX 9-B (CONTINUED)

gross receipts of any member of the group for a taxable year of less than 12 months, the gross receipts shall be annualized by (i) multiplying the gross receipts for the short period by 12, and (ii) dividing the result by the number of months in the short period.

In addition, in determining the gross receipts of the group for the three taxable years preceding the taxable year in which the contract is entered into, the gross receipts of all persons (or their predecessors) who are members of the group as of the first day of the taxable year in which the contract is entered into are included in such determination, regardless of whether such persons were members of the group for any of the three preceding taxable years. Similarly, the gross receipts of persons that were members of the group for any or all of the three preceding taxable years, but who (including their successors) are not members of the group as of the first day of the taxable year in which the contract is entered into, are not included for purposes of determining the taxpayer's average gross receipts.

*Example* (1). Assume that a parent corporation (P) has continuously owned 100 percent of the stock of another corporation (S1) since 1983 and that P and S1 are calendar year taxpayers. S1 enters into a long-term contract in March of 1987 In addition, P acquired 100 percent of the stock of another calendar year corporation (S2) as of the beginning of business on January 1, 1987. In determining whether S1's long-term contract is subject to the provisions of section 460 the gross receipts of P, S1, and S2 for 1984 1985 and 1986 shall be aggregated excluding the gross receipts attributable to transactions occurring between the three corporations The gross receipts of S2 are taken into account because it was a member of the group on January 1 1987.

*Example* (2). Assume that a parent corporation (P) has continually owned 100 percent of the stock of two other corporations (S1) and (S2) since 1983 and that the three corporations are calendar year taxpayers. S1 enters into a long-term contract in April of 1987. On December 31, 1986 P sells all of S2 stock in S2 In determining whether S1's long-term contract is subject to the provisions of section 460 for the taxable year beginning January 1, 1987 only the gross receipts of P and S1 for 1984, 1985 and 1986 shall be aggregated excluding the gross receipts attributable to transactions occurring between the two corporations. The gross receipts of S2 are not taken into account because it was not a member of the group on January 1, 1987. Similarly gross receipts attributable to transactions between S1 and S2 are not excluded.

In addition to the rules set forth above the rules of section 1.451-3(b)(3)(iii) of the regulations (to the extent not inconsistent with the rules set forth above) relating to the determination aggregation and attribution of gross receipts apply for purposes of section 460(e).

Q-46: Does the exception provided by section 460(e) apply for purposes of the alternative minimum tax?

A-46: Section 56(a)(3) provides in general that the percentage of completion method of accounting (as modified by section 460) shall be used in determining the alternative minimum taxable income ("AMTI") of a taxpayer for all long-term contracts entered into on or after March 1, 1986 for taxable years beginning after December 31, 1986. This general rule does not apply however to any home construction contract that both (i) is entered into after June 21, 1988, and (ii) meets the requirements of section 460(e)(1)(B) (i.e. the taxpayer estimates that such contract will be completed within the 2-year period beginning on the contract commencement date. and the taxpayer's average annual gross receipts for the three taxable years preceding the taxable year in which such contract is entered into do not exceed $10 million). Therefore, except for such home construction contracts the requirement to use the percentage of completion method under section 56(a)(3) applies to all longterm contracts of the taxpayer even if the contracts are exempted under section 460(e)(1) from the requirement to use the percentage of completion method or percentage of completion-capitalized cost method for regular tax purposes.

Under section 56(a)(3), as amended by section 1007(b)(1) of the 1988 Act, however, the percentage of contract completion for any contract described in section 460(e)(1) shall be determined using the simplified cost-to-cost method. (See Q&A-22 for a discussion of the simplified cost-to-cost method.)

Whether or not a contract is described in section 460(e)(1), a taxpayer may elect, as provided in Notice 87-61, solely for purposes of determining percentage of completion for purposes of the alternative minimum tax, to use either (I) the methods of accounting and costs applied in computing regular tax, or (2) the methods of accounting and costs used in computing alternative minimum taxable income. See Notice 87-61 for procedures for making this election.

### XI. CHANGES IN METHODS OF ACCOUNTING

Q-47: If, as a result of the amendment of section 460 by the 1988 Act, a taxpayer wishes to change from the percentage of completion-capitalized cost method to the percentage of completion method, in what circumstances may the taxpayer do so without obtaining the consent of the Commissioner?

A-47: For purposes of section 460 of the Code, any taxpayer using a method of accounting other than the percentage of completion method as its normal method of accounting for long-term contracts (e.g., a taxpayer using the completed contract, cash or an accrual method of accounting) may automatically change its method of accounting to the percentage of completion method (including, if elected, the simplified cost-to-cost method) for—

1) all items under all long-term contracts entered into by the taxpayer after June 20, 1988; or

2) all items under all long-term contracts entered into by the taxpayer after October 13, 1987; or

3) all items under all long-term contracts entered into by the taxpayer after February 28, 1986.

The effect of alternative (2), regarding contracts entered into after October 13, 1987, is to extend the time period set forth in Notice 88-66 within which taxpayers may elect to use the percentage of completion method for all such contracts. The effect of alternative (3), Unable to recognize this page. regarding contracts entered into after February 28, 1986, is to extend the period, initially set forth in Notice 87-61, within which taxpayers may elect to use the percentage of completion method for all such contracts. Thus, for example, a taxpayer may use the percentage of completion-capitalized cost method for all contracts entered into after February 28, 1986 and before June 21, 1988, and may, under the terms of this notice, automatically (i.e., without requesting the consent of the Commissioner) change its method of accounting to the percentage of completion method for all longterm contracts entered into after June 20, 1988. Alternatively, a taxpayer may, under the terms of this notice, use the percentage of completion-capitalized cost method for all contracts entered into after February 28, 1986, and before October 14, 1987, and may, under the terms of this notice, automatically change its method of accounting to the percentage of completion method for all items under all contracts entered into after October 13, 1987. In addition, a taxpayer may, under the terms of this notice, use the percentage of completion method for all items under all long-term contracts entered into after February 28, 1986.

This automatic change in method of accounting for long-term contracts is conditioned on the filing of an amended return for any affected tax year for which a Federal income tax return has been filed (subject to the applicable statute of limitations). The period for filing amended returns for taxpayers changing their method of accounting to the percentage of completion method is provided in Q&A-49 of this notice. Any taxpayer changing its method under this Q&A-47 must follow the notification procedures in Q&A-49.

Any automatic change to a method of accounting permitted under this Q&A-47 shall be effectuated by using a "cut-off" method with respect to contracts entered into after February 28, 1986, or October 13, 1987, or June 20, 1988, as the case may be. Thus, there is no change in the accounting method used with respect to any contract entered into before the applicable effective date, and the taxpayer shall not compute a section 481(a)

## APPENDIX 9-B (CONTINUED)

adjustment with respect to its use of the new method of accounting.

Any change in method of accounting to the percentage of completion method other than a change for—

1) all items under all long-term contracts entered into by the taxpayer after February 28, 1986, or

2) all items under all long-term contracts entered into by the taxpayer after October 13, 1987, or

3) all items under all long-term contracts entered into by the taxpayer after June 20, 1988, will constitute a change in method of accounting that requires the consent of the Commissioner. For example, if a calendar year taxpayer wishes to change from the percentage of completion-capitalized cost method to the percentage of completion method for its taxable year beginning on January 1, 1989, such taxpayer is required to obtain the consent of the Commissioner with respect to such change in method of accounting. Moreover, in such a situation, any change in method of accounting approved by the Commissioner (and any resulting section 481(a) adjustment) shall not consist, in whole or in part, of a change in method of accounting required to initially comply with section 460. Therefore, any resulting adjustment computed pursuant to section 481(a) shall relate only to a change from one proper method under section 460 to another proper method under section 460. See Q&A-13 for rules regarding taxpayers that had not complied with section 460 prior to requesting a change in their method of accounting for long-term contracts.

Q-48: What procedures should taxpayers follow to effectuate (1) the change in the percentage of completion-capitalized cost method of accounting from the 70/30 method to the 90/10 method required by the 1988 Act, and (2) the change in method of accounting for home construction contracts pursuant to the 1988 Act?

A-48: These changes shall be effectuated by using a "cut-off" method with respect to contracts entered into after June 20, 1988, i.e., the taxpayer shall not change its method of accounting for contracts entered into before June 21, 1988, and no adjustment under section 481(a) of the Code shall be computed. Taxpayers making these changes shall follow the notification procedures in Q&A-49 of this notice.

Q-49: What notification and filing procedures should be followed by taxpayers changing methods of accounting under either Q&A-47 or Q&A-48 of this notice?

A-49: Any taxpayer described in Q&A-47 or Q&A-48 of this notice shall complete and file a statement notifying the Internal Revenue Service of its use of the various methods of accounting (including the simplified cost-to-cost method) permitted under this notice with the taxpayer's Federal income tax return for the first taxable year ending after June 20, 1988, for which the taxpayer is required to account under section 460 for long-term contracts. The taxpayer shall type or legibly print the following language at the top of the statement required to be filed: "NOTIFICATION PROCEDURES UNDER SECTION XI OF NOTICE 89-15." Any amended return filed by a taxpayer for the purpose, in whole or in part, of changing the taxpayer's method of accounting under Q&A-47 must be filed on or before August 14, 1989. The taxpayer shall type or legibly print the following language at the top of each amended return: "NOTIFICATION PROCEDURES UNDER SECTION XI OF NOTICE 89-15."

Notwithstanding the requirements of the preceding paragraph, if a taxpayer has (i) filed a Federal income tax return on which the statement described in the preceding paragraph was required to be included, (ii) failed to file the statement described in the preceding paragraph with such return, and (iii) otherwise properly used the method of accounting as required or allowed under this notice (including Q&A-47 and Q&A-48), the taxpayer may file a statement indicating the use of its method of accounting under the following procedures. This statement must be attached to the taxpayer's first Federal income tax return filed after May 15, 1989, for which the taxpayer is required to account under section 460 for long-term contracts. (A taxpayer, at its option, may attach the statement with any return filed before May 16, 1989.) The taxpayer shall type or legibly print the following language at the top of the statement required to be filed: "NOTIFICATION PROCEDURES UNDER SECTION XI OF NOTICE 89-15."

PROCEDURAL INFORMATION

This notice serves as an "administrative pronouncement" as that term is described in section 1.6661-3(b)(2) of the regulations and may be relied upon to the same extent as a revenue ruling or a revenue procedure. It is expected that provisions of this notice will be included in forthcoming regulations to be issued under section 460. The Commissioner invites comments concerning the issues addressed in this notice, and other issues arising under section 460.

FOR FURTHER INFORMATION

For further information regarding this notice, contact Paulette C. Glanko at (202)566-3731 or Carol Conjura at (202)566-3024 (neither is a toll-free call.)

# CHAPTER 10

# TAXATION OF SMALL CONTRACTORS

## INTRODUCTION

Chapter 9 introduced you to the basic provisions of Code Section 460 relating to long-term construction contracts. Most contractors are exempt from certain provisions of this section because they meet the definition of small contractor in Section 460(e)(1)(B) (see page 159).

This chapter starts with a detailed discussion of who qualifies for the small contractor exemption. The rest of the chapter describes the key elements of the taxation of small contractors, including revenue recognition, cost capitalization, and the calculation of the alternative minimum tax.

## WHO QUALIFIES FOR THE SMALL CONTRACTOR EXEMPTION?

The requirements for the small contractor exemption were first presented in Chapter 9 and are contained in Code Section 460(e)(1)(B).

To qualify for the small contractor exemption, all of the following must be met:

- The contract is a construction contract.
- At the time the construction contract is entered into, the taxpayer estimates the contract will be completed within the two-year period beginning on the contract commencement date.
- The taxpayer's average annual gross receipts for the three taxable years preceding the taxable year in which the contract is entered into do not exceed $10 million.

### THE TWO-YEAR COMPLETION TEST

To know whether the contract meets the two-year completion test, you need to know when the contract started and when it was completed.

Code Section 460(g) defines the contract commencement date as:

> [T]he first date on which any costs (other than bidding expenses or expenses incurred in connection with negotiating the contract) allocable to such contract are incurred.

The determination of when a contract is considered complete is not specifically defined. Presumably a contract is completed for this purpose at the same time it meets the definition of complete under

Regulation Section 1.451-3(b)(2) (pages 196-197). Refer to the discussion of the completed-contract method later in this chapter.

Note that the two-year completion rule is applied "at the time the contract is entered into." In other words, it is an estimate, and the burden of proof is on the taxpayer to document how long it will take for the contract to reach completion.

Code Section 460 applies to individual contracts, not taxpayers. Any contract that does meet the two-year completion test would not be exempt from Section 460 and would therefore be accounted for using the percentage-of-completion method. So, in some situations, a contractor may account for some contracts using the completed-contract method and others using the percentage-of-completion method.

**Reading Between the Lines**

Code Section 460 addresses contracts, not taxpayers.

Once you make a selection for a given contract, you keep it. If circumstances change at a later date (for example, the contractor's gross receipts exceed $20 million), you do not have to change the method of accounting.

## THE $10 MILLION GROSS RECEIPTS TEST

The application of the $10 million gross receipts test is a little more complicated. The key issues are:

- How you define gross receipts; and
- How you apply the test.

### Defining Gross Receipts

The determination of gross receipts is described in Code Section 460(e)(2) and Regulation Section 1.451-3(b)(3)(iii)(A). Key issues in determining gross receipts include the following:

- *What to Include.* The definition of gross receipts includes the gross receipts from the active conduct of *all trades or businesses*. So gross receipts are *not* limited to construction activities.
- *What to Exclude.* The definition of gross receipts contained in Regulation Section 1.451-3 specifically *excludes* the following:
  - Interest.
  - Dividends.

  - Rents.
  - Royalties.
  - Annuities.

- Amounts realized from the sale or exchange of property used in the trade or business.

- *How to Measure.* Gross receipts should be measured using the tax accounting method of the taxpayer.

- *Whose Gross Receipts to Include.* The definition of gross receipts includes certain trades or businesses that have common ownership with the taxpayer. Common ownership includes both members of a controlled group and trades or businesses (whether incorporated or not) that share common control with the taxpayer, within the meaning of Code Section 52(b).

- *Predecessors.* The gross receipts of all persons (or their predecessors) who are members of the controlled group as of the first day of the taxable year in which the contract is entered into are included in the determination of gross receipts. This is done whether or not these persons were members of the group for any of the three preceding years.

  Similarly, the gross receipts of persons that were members of the group for any or all of the three preceding taxable years, but who (including their successors) are not members of the group as of the first day of the taxable year in which the contract is entered into, are *not* included in the determination of gross receipts. (See Question 45 of IRS Notice 89-15, page 172.)

**Reading Between the Lines**

The rules regarding predecessor entities are generally taken to mean that the characteristics of a joint venture follow the characteristics of the venturers. So, if two large contractors formed a joint venture, that venture would also be considered a large contractor, and the provisions of Code Section 460 would apply.

**Note:** Code Section 460 applies to long-term contracts, not contractors. Therefore, joint venture contracts performed by contractors that qualify for 460 exemption will be reported on this method which may differ from that of partner-venturers.

The rules for determining common control are contained in Regulation Section 1.451-3(b)(3)(iii)(B), a copy of which is included in Appendix 10-A, beginning on page 190. In general those rules include the following:

- *Control Greater Than 50%.* When common control is greater than 50%, then *all* of the gross receipts from *any trade or business* are included for purposes of the gross receipts test. Intercompany transactions should be eliminated.

- *Control Greater Than 5% and Less Than 50%.* When common control is between 5% and 50%, then *a proportionate amount* of the *construction* gross receipts is included for purposes of the gross receipts test.

- *Brother-Sister Relationships.* Common control is established between organizations when five or fewer persons have a controlling interest of each organization.

- *Family Attribution Rules.* In addition to direct ownership, you must also consider attribution from: the spouse, children, grandchildren, parents, and grandparents.

**Value-Added Services**

Many contractors are family-owned. When performing tax planning services for these contractors, it's wise to be thoroughly familiar with the family attribution rules—in which family members are and are not included. Careful decisions made at the front end can result in significant cost savings to your clients. Careless decisions that do not consider the family attribution rules can turn out to be costly.

Additional guidance on determining gross receipts for entities under common control is provided in Question 45 of IRS Notice 89-15. This notice is included as Appendix 9-B, beginning on page 163.

## Applying the Gross Receipts Test

The $10 million gross receipts test is a three-year moving average. It is calculated using the gross receipts for the three years immediately preceding the year in which the contract is entered into.

IRS Notice 89-15 requires taxpayers to annualize the results of any short periods included in the three-year moving average. There is no guidance on how to determine the moving average if the taxpayer has been in existence for less than three years.

*(text continued on page 180)*

**Practical Tax Tip**

The $10 million gross receipts test is based on a three-year moving average. But what if the taxpayer is less than three years old?

Some practitioners would argue that, in effect, if the taxpayer is less than three years old, all bets are off. Since the issue has not been addressed, the taxpayer would be exempt from Code Section 460—free to choose whatever tax accounting methods it wants.

In the author's experience this argument is somewhat out of the mainstream.

A more reasonable approach would be to calculate gross receipts using a weighted average for however many years the taxpayer has been in existence.

## EXAMPLE 10-1: APPLYING THE $10 MILLION TEST

The $10 million gross receipts test is applied annually using a three-year weighted average. Consider the contractor who has the following gross receipts:

| Year | Gross Receipts |
|---|---|
| 19X0 | $ 5 million |
| 19X1 | 12 million |
| 19X2 | 10 million |
| 19X3 | 14 million |
| 19X4 | 4 million |

For contracts entered into in 19X3, the contractor would apply the gross receipts test using the weighted average gross receipts for years X0 through X2. In this case, the average gross receipts are $27 million divided by 3, or $9 million per year. The contractor meets the $10 million gross receipts test.

For contracts entered into during X4, the contractor fails the test. The average gross receipts for the years X1 through X3 is $12 million ($36 million divided by three).

In X5 the contractor again meets the $10 million gross receipts test because the average gross receipts for years X2 through X4 are once again less than $10 million.

Thus, contracts entered into in X3 and X5 are exempt from Code Section 460 and may be accounted for using the completed-contract method. Contracts entered into in year X4 are not exempt from Code Section 460 and therefore must be accounted for using the percentage-of-completion method.

As Example 10-1 shows, a tax return may contain some contracts whose revenue is based on the completed-contract method and others based on the percentage-of-completion method.

Example 10-1 also illustrates how the tax rules follow the contract and not the contractor. Contracts entered into in year X3 may be accounted for using the completed-contract method. The accounting for these contracts *does not change* even though the contractor fails the gross receipts test before the X3 contracts are completed. Similarly, contracts entered into in year X4 must be accounted for using the percentage-of-completion method. The X4 contracts will continue to be accounted for under the percentage-of-completion method even though the contractor subsequently qualifies for the small contractor exemption.

## REVENUE RECOGNITION METHODS FOR SMALL CONTRACTORS

When a contractor qualifies for the small contractor exemption it is exempt from the revenue recognition requirements of Code Section 460. Thus, the small contractor is allowed to use the methods of accounting that were allowed prior to the enactment of Section 460 (March 1, 1986). The most common of these methods are:

- The completed-contract method.
- The percentage-of-completion using the "old rules" before March 1, 1986.
- The cash method.
- The accrual method and other variations.

### THE COMPLETED-CONTRACT METHOD

Under the completed-contract method all revenues and expenses related to the contract are deferred until the project is complete. As mentioned previously, the completed-contract method offers the greatest benefit to the contractor because the deferral period is for the life of the contract.

### APPLYING THE COMPLETED-CONTRACT METHOD

Applying the completed-contract method is usually straightforward, though complications can arise in the following two areas:

1. Determining when a contract is complete; and
2. Accounting for revenues and expenses relating to disputes.

#### *Determining When a Contract Is Complete*

The rules for determining when a contract is complete are contained in Regulation Section 1.451-3(b)(2). That section says that a contract is complete when "final completion and acceptance have

occurred." The regulations state that final completion and acceptance depend on all the facts and circumstances surrounding the contract, including:

- The manner in which the parties to the contract deal with each other and with the constructed project.
- The physical condition and state of readiness of the constructed project.
- The nature of any work or costs remaining to be performed or incurred on the contract.
- The use of the constructed project by the purchaser.

The full text of the regulations dealing with project completion is included as Appendix 10-B. Appendix 10-C, on page 198, contains examples (as originally provided in the regulations) on how to apply the regulations.

### *Contract Disputes*

In general, the income and expenses related to amounts in dispute are deferred and recognized in the year the dispute is resolved. However, if the amount in dispute is so large the taxpayer is no longer able to reasonably determine if the contract will result in a profit or loss, then no income or expense related to the contract in dispute should be recognized until the dispute is resolved.

Appendix 10-D, beginning on page 200, contains the text of the regulations relating to contract disputes. Appendix 10-E, beginning on page 202, contains examples of how to apply the regulations.

## THE PERCENTAGE-OF-COMPLETION METHOD (OLD RULES)

Contractors that qualify for the small contractor exemption may elect to use the "old rules" percentage-of-completion method. The "old rules" are those in effect before the enactment of Code Section 460, that is, the percentage-of-completion method as described in Regulation Section 1.451-1. However, production period interest must be capitalized and look-back must be applied for AMT purposes under the "new rules."

Under the "old rules," a small contractor has the flexibility to measure the percentage complete using the cost-to-cost method or a physical completion method. A physical completion method involves comparing the work performed on the contract with the estimated total work to be performed as of the end of the taxable year, for example, in terms of cubic yards or linear feet. Completion may be supported by an architect's or engineer's certificate.

One of the advantages to using the percentage-of-completion method for tax purposes is that the method may be acceptable for financial statement purposes. That is, if the tax percentage- of-completion method is materially the same as GAAP percentage-of-completion, then the tax method can be used for GAAP purposes. This will eliminate the need to make separate tax and financial statement calculations and will simplify the accounting for deferred taxes.

The primary disadvantage to using the percentage-of-completion method for tax purposes is the contractor loses the income deferral achieved by the completed-contract method.

## OTHER REVENUE RECOGNITION METHODS

Other revenue recognition methods available to the small contractor include the cash method and the accrual method.

### The Cash Method

Under the cash method, income is recognized when actually or constructively received. Expenses are recognized in the year paid. To qualify for the cash method, the contractor must meet the following three conditions:

1. Use of the cash method does not significantly distort income. Contractors that have *significant* contract-related receivables and payables generally would *fail* this test.

2. If the taxpayer is a C corporation, a partnership with a C corporation as a partner, or a tax shelter, the taxpayer must meet a three-year average gross receipts test of $5 million or less.

3. The taxpayer must not have significant inventories or be required to maintain inventories.

Of the three criteria listed above, the third one regarding inventories is usually the most problematic. Interpretations of whether the taxpayer is "required to maintain inventory" can vary.

The rules for maintaining inventory are in Regulation Section 1.471-1, which says inventories are required in every case in which the production, purchase, or sale of merchandise is an income-producing factor.

So, in *JP Sheahan Associates, Inc., v. Commissioner* (90 TC Memo 1992-239), the supplies purchased by a roofing repair contractor were determined to be an "income-producing factor," held for sale and production of income. Even though there was no inventory at year-end, the taxpayer was required to switch from the cash basis of accounting.

CPAs should be careful in advising their contractor clients to adopt the cash method of accounting. Contractors that are forced to change from the cash basis will be assessed interest on any tax deficiency. They may also be assessed penalties, perhaps including a penalty for substantial underpayment of tax.

The following are relevant court cases relating to the use of the cash method of accounting by construction contractors:

- *JP Sheahan Associates, Inc.*, v. *Commissioner* (TC Memo 1992-239).
- *Independent Contracts, Inc.*, v. *U.S.* (DC Al. 1994) 73 AFTR 2d 941406.
- *Ansley-Sheppard-Burgess Company v. Commissioner* [(104 TC No. 17 (1995)] CCH Dec. 50,547.
- *Thompson Electric, Inc.* v. *Commissioner* (TC Memo 1995-292).

**Reading Between the Lines**

Any challenge the IRS will make of the use of the cash method most likely will cite the presence of inventory. In the author's experience, the IRS seems to be looking at a 15% threshold for determining whether construction material is an income-producing factor. If construction materials are 15% or more of revenue, then the contractor is at risk of an audit, and the use of the cash method should be reevaluated.

- *Galeredge Construction, Inc.*, v. *Commissioner* (TC Memo 1997-240).
- *Tebarco Mechanical Corporation* v. *Commissioner* (TC Memo 1997-311).

**Reading Between the Lines**

Historically, the IRS has been aggressive in challenging the use of the cash method. However, in guidance recently issued to Real Estate Industry Market Segment Specialization Program (MSSP) field agents, the IRS reiterated that the cash method is permissible under certain circumstances. For example, when merchandise is not an income-producing factor, the cash method may be appropriate, absent inventory accounting requirements.

The guidance also states that the cash method should not be disallowed simply because of the presence of accounts receivable, steadily increasing accounts receivable, and lack of financial statement conformity. (In other words, it is permissible for taxpayers to keep their books on the accrual method and prepare their tax returns on the cash method).

Thus, it appears that the IRS is being more permissive in the use of the cash method.

## The Accrual Method

Key points about the accrual method are as follows:

- *Revenue Recognition.* Generally, revenue is recognized when billable under the terms of the contract. When the right to receive income depends on a contingency, that amount is not included in income until the contingency is resolved [*Charles F. Dally*, 20 TC 894 (1953), affirmed 227 F2d 724 (9th Cir.), cert. denied, 351 US 908; 76 Sup. Ct. 699].
- *Expenses.* Expenses are recognized as incurred and the amount is reasonably determinable.

- *Overruns and Change Orders.* Income from overruns and change orders is recognized when the amount is reasonably determined and is approved by the owner. The related expenses are recognized as incurred.

**Reading Between the Lines**

As discussed in earlier chapters, the billing on most contracts is front-end loaded. Thus, one of the disadvantages to the accrual method is that it accelerates revenue recognition. If possible, contractors using the accrual method may want to delay events that trigger the right to bill under the contract at the end of the tax year.

## COST CAPITALIZATION AND ALLOCATION

### COST CAPITALIZATION

Small contractors are generally exempt from the cost capitalization rules of Code Section 460. The only exception to this rule is that they are required to capitalize interest, as described in Code Section 460(e).

Since they are generally exempt from Section 460, small contractors must use the cost capitalization rules that were in effect before March 1, 1986. Those rules are found in Regulation Section 1.451-3(d)(5). In general those rules require the capitalization of direct costs plus indirect costs incurred in the performance of the contract. Indirect costs that are not related to the performance of the contract or that serve to benefit the contractor as a whole are generally not capitalized.

Exhibit 10-1 on the following page summarizes the cost capitalization rules for small contractors.

### COST ALLOCATION

The rules for allocating costs to contracts are found in Regulation Section 1.451-3(d)(8) and (9). Those rules are summarized as follows:

- *Records.* The taxpayer must maintain separate accounts for each contract. Direct costs and indirect costs must be allocated to those records.

- *Direct Labor.* Direct labor costs must be allocated using a specific identification method. If the direct labor costs are attributable to more than one contract and are intermingled so it is impractical to specifically identify these costs, they may be allocated using any reasonable method.

- *Direct Materials.* Direct materials should be allocated using the taxpayer's method of accounting inventories (e.g., specific identification, FIFO, LIFO, etc.).

*(text continued on page 186)*

**Exhibit 10-1**
**Cost Capitalization Rules for Small Contractors**

| Capitalize | Do *Not* Capitalize |
|---|---|
| *Code Section 460*<br>Production period interest | |
| *Regulation Section 1.451-3(d)(5)*<br>Direct materials<br>Direct labor | *Regulation Section 1.451-3(d)(5)* |
| Indirect costs | Indirect costs |
| • Repair and maintenance of equipment or facilities used in the performance of the contract. | • Marketing and selling expenses, including bidding expenses. |
| • Utilities relating to equipment or facilities used in the performance of the contract. | • Advertising. |
| | • Other distribution expenses. |
| • Rent of equipment or facilities used in the performance of the contract. | • General and administrative expenses attributable to the performance of services that benefit the contractor's activities as a whole. |
| • Indirect labor and contract supervisory wages. | |
| • Indirect materials and supplies. | • Research and experimental expenses. |
| • Tools and equipment not capitalized. | • Losses under Section 165. |
| • Costs of quality control and inspection. | • Percentage depletion in excess of cost depletion. |
| • Taxes otherwise allowable as a deduction under Section 164 to the extent they are attributable to labor, materials, supplies, equipment or facilities. | • Depreciation, amortization and cost recovery allowances reported for *tax purposes* on equipment and facilities. |
| • Depreciation, amortization, and cost recovery allowances reported for *financial purposes* on equipment and facilities. | • Depreciation, amortization and cost recovery allowances on idle equipment and facilities. |
| • Cost depletion incurred in the performance of the contract. | • Income taxes attributable to income received from long-term contracts. |
| • Administrative costs incurred in the performance of the contract. | • Contributions to a stock bonus, pension, profit-sharing, annuity, or similar plan. |
| • Compensation paid to officers attributable to services performed on the contract. | • Cost attributable to strikes, rework labor, scrap, and spoilage. |
| • Cost of insurance incurred in the performance of the contract. | • Compensation paid to officers attributable to the performance of services that benefit the contractor's activities as a whole. |

- *Indirect Costs.* Indirect costs must be allocated using the specific identification method or a method using burden rates that result in a reasonable allocation.

As discussed above, Code Section 460(e) requires small contractors to capitalize and allocate production period interest in accordance with the Uniform Capitalization Rules at Code Section 263A.

## AMT CONSIDERATIONS FOR SMALL CONTRACTORS

The myriad of tax choices available to contractors creates a variety of tax preference items subject to the Alternative Minimum Tax (AMT) rules. The most common preference items are:

- *Long-term contract preference.* Code Section 56(a)(3) requires small contractors to use the percentage-of-completion method to compute AMT. Thus, any small contractor that uses a method other than percentage-of-completion will have an AMT preference item.

- *Accelerated depreciation.* This preference item can be especially significant for equipment-intensive contractors such as road builders.

There are two important exceptions to the AMT rules. Contractors that qualify for these exceptions are exempt from the AMT. These exceptions exist for:

- *Home construction contracts,* and

- *Certain "small" C corporations.*

### THE HOME CONSTRUCTION CONTRACT EXCEPTION

Home construction contracts are exempt from the AMT. A home construction contract means any construction contract if 80% or more of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to the building, construction, reconstruction or rehabilitation of:

i. Dwelling units contained in buildings containing four or fewer dwellings, and

ii. Improvements to real property directly relating to such dwelling units and located on the site of such dwelling units.

In qualifying for this exception, you should note the following:

- *80% test usually not an issue.* To qualify for the exemption, 80% of total contract costs must be attributable to the construction. Typically, this is not a problem.

- *On-site subcontractors qualify for the exemption.* Clearly, any contractor that builds single-family detached dwellings would qualify for the above exemption. Additionally, the general consensus among tax practitioners is that any subcontractor such as a framer, drywaller, roofer, et al., that works on single-family construction *also qualifies* for the exemption.

- *Off-site contractors may qualify for the exemption.* Subparagraph ii above grants an exemption for contracts related to improvements to real property directly related to the homes. This would seem to exempt contractors that, for example, build roads and gutters in a housing subdivision. However, in practice, this tax position is considered somewhat risky.

- *Distinguish between townhouses and condominiums.* For the purpose of applying subparagraph i, the rules make it clear that each townhouse or rowhouse is treated as a separate building. No such provision exists for condominiums or apartments. Thus, a contract to build eight townhouses, contiguously attached, would qualify for the home construction contract exemption because each townhouse is treated separately. However, a contract to build an eight-unit condo or apartment building would *not* qualify for the exemption.

## THE EXEMPTION FOR CERTAIN SMALL C CORPORATIONS

The Tax Act of 1997 created an AMT exemption for certain small C corporations. That exemption is available for tax years beginning after December 31, 1997, and exists for any C corporation that had average gross receipts of $5,000,000 or less for the three tax years that ended with its first tax year beginning after December 31, 1996. If the corporation was not in existence for the entire three-year period, then the $5,000,000 test is applied on the basis of the period during which the corporation was in existence.

The exemption from AMT is lost once the entity's average gross receipts for the prior three tax years exceeds $7,500,000. At that point, the taxpayer becomes liable for AMT. However, the AMT liability is based on only those preference items that pertain to transactions entered into *after the corporation lost its exemption.*

**Value-Added Service Opportunity**

Note that the exemption is available only to C corporations. This provides a significant advantage to start-up contractors that organize as C corporations rather than as pass-through entitites such as S corporations or LLCs. A start-up C corporation could defer taxes by using the completed-contract method and at the same time avoid paying AMT. This will allow the company to build and sustain its capital during its start-up period.

## SUMMARY

This chapter covered the tax rules for small contractors. Small contractors are generally exempt from Code Section 460, and, as such, enjoy certain benefits under the tax rules. In order to qualify for the small contractor exemption, the contractor must meet the two-year completion test and the $10 million gross receipts test.

Small contractors can use the completed-contract and other "normal" methods for revenue recognition. The advantage of the completed-contract method is that it defers income recognition for the life of the contract.

Small contractors are exempt from the cost capitalization rules of Code Section 460, except for the requirement to capitalize production period interest. In general, a small contractor must capitalize direct materials and labor, indirect costs related to the performance of the contract, and production period interest.

## ILLUSTRATION: THE GROSS RECEIPTS TEST FOR ENTITIES UNDER COMMON CONTROL

**Situation**: X Corporation holds an 80% interest in a construction joint venture. Gross receipts for the corporation and the joint venture are presented below.

| | X Corp | Joint Venture |
|---|---|---|
| Year 1 | $ 5 million | $ 10 million |
| Year 2 | 5 million | 10 million |
| Year 3 | 5 million | 10 million |

X Corporation wants to qualify for the small contractor exemption and use the completed-contract method.

**Problem One**: Given the facts presented above, does X Corporation meet the gross receipts test?

**Solution One**: No. Because X Corporation owns more than 50% of the joint venture, the two are considered to be a group under common control. In this situation, *100%* of the gross receipts from any trade or business of the joint venture must be included in the gross receipts test.

When all of the gross receipts of the joint venture are combined with X Corporation gross receipts, the average annual gross receipts are greater than $10 million. Therefore, X Corporation fails the gross receipts test, and it falls under the provisions of Code Section 460.

**Problem Two**: Would X Corporation meet the gross receipts test if it owned a 30% interest in the joint venture?

**Solution Two**: If X Corporation owned only a 30% interest in the joint venture, then the two are *not* considered to be under common control. When ownership is between 5% and 50% then a *proportional amount* of *construction* income is included for purposes of the gross receipts test. In this case, 30% of the $10 million joint venture income is $3 million. When added to X Corporation's $5 million in gross receipts, the total is only $8 million, which meets the gross receipts test.

# APPENDIX 10-A

# COMMON CONTROL

(Excerpts From Applicable Regulations)

*To qualify for the small contractor exemption, the contractor must meet several criteria, one of which is the gross receipts test. The definition of gross receipts includes certain trades or businesses that have common ownership with the taxpayers. The regulations below describe these common control rules.*

**REG 1.451-3(b)(3)(iii)(B)**

**(B) Aggregation of All Gross Receipts of Trades or Businesses Under Common Control**

If, at any time during the calendar year in which the taxpayer enters into a construction contract, such taxpayer and any other trades or businesses (whether or not incorporated) are under common control, then the average annual gross receipts of each such trade or business (for the 3 taxable years of such trade or business preceding the taxable year of such trade or business in which the construction contract is entered into or, if less, the number of preceding taxable years such trade or business has been in existence) shall be combined with the average annual gross receipts of the taxpayer for taxpayer's 3 taxable years preceding the taxable year of the taxpayer in which the construction contract is entered into (or, if less, the number of preceding taxable years the taxpayer has been in existence). Gross receipts attributable to transactions between trades or businesses under common control shall be eliminated. For purposes of paragraph (b)(3) of this section, the term "trades or businesses under common control" means any group of trades or businesses that is either—

(1) A "parent-subsidiary group under common control" as defined in Sec. 1.52-1(c),

(2) A "brother-sister group under common control" as defined in Sec. 1.52-1(d), or

(3) A "combined group under common control" as defined in Sec. 1.52-1(e).

**(C) Attribution of Construction Gross Receipts to or From Individuals, Proprietorships, Corporations, Partnerships, Trusts and Estates Not Under Common Control**

(1) Attribution of construction gross receipts to the contractor from persons owning an interest in the contractor.

For purposes of paragraph (b)(3) of this section, if a 5 percent or greater interest in the person who enters into a construction contract (hereinafter, "the contractor") is owned (at any time during the calendar year in which the construction contract is entered into), directly, or indirectly through the application of this paragraph (b)(3)(iii)(C), by or for any person, the average annual gross receipts of the contractor for the contractor's 3 taxable years preceding the taxable year of

## APPENDIX 10-A (CONTINUED)

the contractor in which the contract was entered into (or, if less, the number of preceding taxable years the contractor has been in existence) shall include the average annual construction gross receipts of such person (for the 3 taxable years of such person preceding the taxable year of such person in which the contract was entered into or, if less, the number of preceding taxable years in which such person has been in existence) in proportion to the interest of such person in the contractor. If an interest is not owned for the entire calendar year, or if an interest varies during the calendar year, the amount of such interest for such year shall be the weighted average based on the number of days each interest is owned during such calendar year.

(2) Attribution of construction gross receipts to the contractor from persons in which the contractor owns an interest.

For purposes of paragraph (b)(3) of this section, if (at any time during the calendar year in which the contractor enters into a construction contract) a 5 percent or greater interest in any person is owned, directly, or indirectly through the application of this paragraph (b)(3)(iii)(C), by or for the contractor, the average annual gross receipts of the contractor for the contractor's 3 taxable years preceding the taxable year of the contractor in which the contract was entered into (or, if less, the number of preceding taxable years the taxpayer has been in existence) shall include the average annual construction gross receipts of such person (for the 3 taxable years of such person preceding the taxable year of such person in which the contract was entered into or, if less, the number of preceding taxable years such person has been in existence) in proportion to the interest of the contractor in such person. If an interest is not owned for the entire calendar year, or if an interest varies during the calendar year, the amount of such interest for such year shall be the weighted average based on the number of days each interest is owned during such calendar year.

(3) Rules for determining ownership.

(i) In general. In determining the ownership of an interest in any person for purposes of paragraph (b)(3)(iii)(C) of this section, the indirect and constructive ownership rules of this paragraph (b)(3)(iii)(C)(3) shall apply, subject to the operating rules contained in paragraph (b)(3)(iii)(C)(4). For purposes of paragraph (b)(3)(iii)(C), an 'interest' means: in the case of a corporation, stock; in the case of a trust or estate, an actuarial interest; in the case of a partnership, an interest in capital or profits; and in the case of a sole proprietorship, the proprietorship.

(ii) Members of a family. An individual shall be considered as owning any interest in any person owned, directly or indirectly, by or for—

(A) Such individual's spouse (other than a spouse who is legally separated from the individual under a decree of divorce or separate maintenance, whether final or interlocutory), and

(B) Such individual's children, grandchildren, parents and grandparents. A legally adopted child of an individual shall be treated as the child of such individual.

## APPENDIX 10-A (CONTINUED)

(iii) Attribution from partnerships, estates, trusts and corporations.

(A) From partnerships. An interest in any person owned, directly or indirectly, by or for a partnership shall be considered as owned by any partner having a 5 percent or greater interest in either the profits or capital of the partnership, in proportion to such partner's interest in profits or capital, whichever is greater.

(B) From estate and trusts. An interest in any person (hereinafter an "organization interest") owned, directly or indirectly, by or for an estate or trust shall be considered as owned by any beneficiary of such estate or trust who has an actuarial interest of 5 percent or greater in such organization interest, to the extent of such actuarial interest, as determined under Sec. 11.414(c)-4(b)(3). An interest in any person owned, directly or indirectly, by or for any portion of a trust of which a person is considered the owner under subpart E of part I of subchapter J (relating to grantors and others treated as substantial owners) shall be considered as owned by such person.

(C) From corporations. An interest in any person owned, directly or indirectly, by or for a corporation shall be considered as owned by any shareholder who owns (directly, and indirectly through the application of paragraph (b)(3)(iii)(C) of this section) 5 percent or more in value of such corporation's stock, in proportion to the value of the stock owned by such shareholder to the total value of all the outstanding stock in such corporation.

(iv) Attribution to partnerships, estates, trusts and corporations.

(A) To partnerships. An interest in any person owned, directly or indirectly, by or for a partner having a 5 percent or greater interest in partnership profits or capital shall be considered as owned by the partnership in proportion to the partner's interest in profits or capital, whichever is greater.

(B) To estates and trusts. An interest in any person owned, directly or indirectly, by or for a beneficiary having an actuarial interest of 5 percent or greater in the value of property of an estate or trust shall be considered as owned by such estate or trust in proportion to the beneficiary's actuarial interest in the assets of the estate or trust. For purposes of this paragraph (b)(3)(iii)(C)(3)(iv)(B) the actuarial interest of a beneficiary shall be determined under the maximum exercise of discretion by the executor or trustee in favor of such beneficiary. An interest in any person owned, directly or indirectly, by or for a person who is considered the owner of any portion of a trust under subpart E of part I of subchapter J (relating to grantors and others treated as substantial owners) shall be considered as owned by such trust.

(C) To corporations. An interest in any person owned, directly or indirectly, by or for a shareholder who owns (directly and indirectly through the application of paragraph (b)(3)(iii)(C) of this section) 5 percent or more in value of the stock in a corporation shall be considered as owned by such corporation in proportion to the value of the stock owned by such shareholder to the total value of all the outstanding stock in such corporation.

## APPENDIX 10-A (CONTINUED)

(v) Options.

If a person has an option to acquire any outstanding interest in any organization, such interest shall be considered as owned by such person. An option to acquire an option, and each one of a series of such options, shall be considered as an option to acquire such an interest.

(4) Operating rules.

(i) Common control.

Paragraph (b)(3)(iii)(C) of this section shall not apply between two persons both of whom, under paragraph (b)(3)(iii)(B), are members of the group of trades or businesses under common control that includes the contractor. However, in applying paragraph (b)(3)(iii)(C) between two persons where one or both of such persons are not members of the group of trades or businesses under common control that includes the contractor, paragraph (b)(3)(iii)(C) shall be applied without regard to paragraph (b)(3)(iii)(B).

(ii) Reattribution.

Except as provided in paragraph (b)(3)(iii)(C)(4)(iii) (relating to no double family attribution) or (iv) (relating to no reattribution to certain co-owners), in applying paragraphs (b)(3)(iii)(C)(3) (ii), (iii), (iv), or (v), an interest constructively owned by a person shall, in applying paragraphs (b)(3)(iii)(C)(3), (ii), (iii), (iv) or (v), be considered as actually owned by such person, and such interest may be reattributed to another person.

(iii) No double family attribution.

An interest constructively owned by an individual by reason of paragraph (b)(3)(iii)(C)(3)(ii) shall not be considered as owned by such individual for purposes of again applying such paragraph to make another the constructive owner of such interest.

(iv) No reattribution to certain co-owners.

An interest constructively owned by a person by reason of paragraph (b)(3)(iii)(C)(3)(iv) shall not be considered as owned by such person for purposes of applying paragraph (b)(3)(iii)(C)(3)(iii) in order to make another person the constructive owner of such interest.

(v) Option rule in lieu of family rule. If an interest may be considered as owned by an individual under paragraphs (b)(3)(iii)(C)(3)(ii) or (v), it shall be considered as owned by such individual under paragraph (b)(3)(iii)(C)(3)(v).

(vi) Limitation. In applying paragraph (b)(3)(iii)(C)(3) to determine the ownership of an interest by any person for any one purpose—

(A) A corporation shall not be considered to own its own stock by reason of paragraph (b)(3)(iii)(C)(3)(iv)(C), and

## APPENDIX 10-A (CONTINUED)

(B) If an interest owned by any person may be included in the computation more than one time, such interest shall be included only once, in the manner that will impute to the person concerned the largest total interest.

### Sec. 1.52-1 TRADES OR BUSINESSES THAT ARE UNDER COMMON CONTROL

**(c) Parent-subsidiary group under common control**

(1) In general

The term "parent-subsidiary group under common control" means one or more chains of organizations conducting trades or businesses that are connected through ownership of a controlling interest with a common parent organization if—

(i) A controlling interest in each of the organizations, except the common parent organization, is owned (directly and with the application of Sec. 1.414(c)-4(b)(1), relating to options) by one or more of the other organizations; and

(ii) The common parent organization owns (directly and with the application of Sec. 1.414(c)-4(b)(1), relating to options) a controlling interest in at least one of the other organizations, excluding, in computing the controlling interest, any direct ownership interest by the other organizations.

(2) Controlling interest defined

For purposes of this paragraph, the term "controlling interest" means:

(i) In the case of a corporation, ownership of stock possessing more than 50 percent of the total combined voting power of all classes of stock entitled to vote or more than 50 percent of the total value of the shares of all classes of stock of the corporation;

(ii) In the case of a trust or estate, ownership of an actuarial interest (determined under paragraph (f) of this section) of more than 50 percent of the trust or estate;

(iii) In the case of a partnership, ownership of more than 50 percent of the profit interest or capital interest of the partnership; and

(iv) In the case of a sole proprietorship, ownership of the sole proprietorship.

**(d) Brother-sister group under common control**

(1) In general

The term "brother-sister group under common control" means two or more organizations conducting trades or businesses if—

(i) The same five or fewer persons who are individuals, estates, or trusts own (directly and with the application of Sec. 1.414(c)-4(b)(1)), a controlling interest of each organization; and

## APPENDIX 10-A (CONTINUED)

(ii) Taking into account the ownership of each person only to the extent that person's ownership is identical with respect to each organization, such persons are in effective control of each organization.

The five or fewer persons whose ownership is considered for purposes of the controlling interest requirement for each organization must be the same persons whose ownership is considered for purposes of the effective control requirement.

(2) Controlling interest defined

For purposes of this paragraph, the term "controlling interest" means:

(i) In the case of a corporation, ownership of stock possessing at least 80 percent of the total combined voting power of all classes of stock entitled to vote or at least 80 percent of the total value of the shares of all classes of stock of the corporation;

(ii) In case of a trust or estate, ownership of an actuarial interest (determined under paragraph (f) of this section) of a least 80 percent of the trust or estate;

(iii) In the case of a partnership, ownership of at least 80 percent of the profit interest or capital interest of the partnership; and

(iv) In the case of a sole proprietorship, ownership of the sole proprietorship.

(3) Effective control defined

For purposes of this paragraph "effective control" means:

(i) In the case of a corporation, ownership of stock possessing more than 50 percent of the total combined voting power of all classes of stock entitled to vote or more than 50 percent of the total value of the shares of all classes of stock of the corporation;

(ii) In the case of a trust or estate, ownership of an actuarial interest (determined under paragraph (f) of this section) of more than 50 percent of the trust or estate;

(iii) In the case of a partnership, ownership of more than 50 percent of the profit interest or capital interest of the partnership; and

(iv) In the case of a sole proprietorship, ownership of the sole proprietorship.

**(e) Combined group under common control**

The term "combined group under common control" means a group of three or more organizations, in which (1) each organization is a member of either a parent-subsidiary group under common control or brother-sister group under common control, and (2) at least one organization is the common parent organization of a parent-subsidiary group under common control and also a member of a brother-sister group under common control.

# APPENDIX 10-B

# DETERMINING WHEN A CONTRACT IS COMPLETE

*In applying the completed contract method, you must know when the contract is considered complete. The following regulations describe when a contract is "complete" for purposes of applying the completed contract method.*

## Reg. 1.451-3(b)(2) COMPLETED CONTRACT, DETERMINING COMPLETION

### (i) Final completion and acceptance

(A) General rule

Except as otherwise provided in this paragraph (b)(2), and in paragraph (d) (2), (3), and (4) of this section (relating to disputes), a long-term contract shall not be considered "completed" until final completion and acceptance have occurred. Nevertheless, a taxpayer may not delay the completion of a contract for the principal purpose of deferring Federal income tax.

(B) Completion determined on basis of all facts and circumstances

Final completion and acceptance of a contract for Federal income tax purposes is determined from an analysis of all the relevant facts and circumstances, including the manner in which the parties to the contract deal with each other and with the subject matter of the contract, the physical condition and state of readiness of the subject matter of the contract, and the nature of any work or costs remaining to be performed or incurred on the contract. In considering the manner in which the parties deal with the subject matter of the contract, any use of the primary subject matter of the contract by the purchaser (except for testing purposes that produce no gross revenue, cost savings, or other substantial benefits for the purchaser) will be considered.

***

### (ii) Contracts with more than one subject matter

(A) General rule

In the case of a long-term contract (which, after the application of the rules provided in paragraph (e) of this section, is treated as a single long-term contract for Federal income tax purposes) for one or more units (such as an aircraft or an item of industrial machinery) that represent the primary subject matter of the contract, and for other items (such as training manuals, or spare or replacement parts or components) that do not represent the primary subject matter of the contract, "final completion and acceptance" shall be determined without regard to the contractor's obligation to supply the other items that do not represent the primary subject matter of the contract. If at the end of the taxable year in which the long-term contract is completed there remain any other items that do not represent the primary subject

## APPENDIX 10-B (CONTINUED)

matter of the contract and that have not been finally completed and accepted, then the costs that have been incurred prior to the end of such year and that are properly allocable to such other items (determined pursuant to paragraph (d) (5) or (6) (as the case may be) of this section), and a portion of the gross contract price (if any) reasonably allocable to such other items shall be separated from the long-term contract, and such costs and such portion of the gross contract price shall be accounted for under a proper method of accounting. Such proper method of accounting includes a long-term contract method only if a separate contract for such other items would be a long-term contract (as defined in paragraph (b)(1) of this section).

***

**(iii) Contingent compensation**

In the case of a long-term contract, "final completion and acceptance" shall be determined without regard to any term of the contract providing for additional compensation contingent upon the continued successful performance of the subject matter of the contract after the subject matter of the contract has been accepted by the purchaser (such as an incentive fee payable if a satellite remains in operation after it is placed in orbit). Such contingent compensation shall be included in gross income in the appropriate taxable year determined under the taxpayer's method of accounting other than a long-term contract method.

**(iv) Certain supervision of installation**

In the case of a long-term contract, "final completion and acceptance" shall be determined without regard to any obligation on the part of the contractor to assist or to supervise installation or assembly of the subject matter of the contract where such installation or assembly is to be performed by the purchaser and, under applicable contract law, the subject matter of the contract may be accepted by the purchaser prior to such installation or assembly. If the preceding sentence applies to a contract, "final completion and acceptance" shall be determined without regard to such obligation (.) In addition, the entire gross contract price less the portion of the gross contract price (if any) reasonably allocable to such obligation, shall be included in gross income in the taxable year in which the contract is completed(.) Further, all costs properly allocable to the contract and which have been incurred prior to the end of the taxable year in which such contract is completed shall be deducted in such year(.) Finally, all other costs properly allocable to such contract and the portion of the gross contract price reasonably allocable to the obligation to assist or to supervise installation shall be accounted for under a proper method of accounting other than a long-term contract method.

**(v) Subcontractors**

In the case of a subcontractor who completes work on a long-term contract prior to the completion of the entire contract, "final completion and acceptance" of the contract with respect to such subcontractor shall be deemed to have occurred when the subcontractor's work has been completed and has been accepted by the party with whom the subcontractor has contracted.

**(vi) Disputes**

Completion of a long-term contract is determined without regard to whether a dispute exists at the time the taxpayer tenders the subject matter of the contract to the party with whom the taxpayer has contracted. See paragraphs (d)(2), (3) and (4) of this section.

# APPENDIX 10-C

# EXAMPLES OF DETERMINING COMPLETION FOR THE COMPLETED-CONTRACT METHOD

*The following examples illustrate the principles of the regulations presented in Appendix 10-B for determining when a project is complete. These examples were taken directly from the regulations.*

Example (1)

In 1982, A, a calendar year contractor, contracts with B to construct a building. The initial completion date specified in the contract is October 1984. In November 1984, the building is completed in every respect necessary for the use for which the building is intended. Later in November 1984, B occupies the building and notifies A that certain minor deficiencies should be corrected. A agrees to correct the deficiencies.

Under these circumstances, the contract is considered completed for Federal income tax purposes in A's taxable year ending December 31, 1984, without regard to when A corrects the deficiencies. The contract is considered completed because the parties have dealt with each other and with the subject matter of the contract in a manner that indicates that final completion and acceptance have occurred.

Example (2)

Assume the same facts as in example 1, except that there are no deficiencies in the building that require correction or repair. In addition, assume that the contract between A and B provides that none of the retainage under the contract may be released to A until A obtains an architect's certificate that the building has been completed according to the specifications of the contract. A obtains this certificate in February, 1985.

Under these circumstances, the contract is considered completed for Federal income tax purposes in A's taxable year ending December 31, 1984, without regard to when A obtains the required architect's certificate, and without regard to when the retainage is released to A, because the parties have dealt with each other and with the subject matter of the contract in a manner that indicates that final completion and acceptance have occurred.

## APPENDIX 10-C (CONTINUED)

Example (3)

In 1983, D, a calendar year taxpayer, contracts with E to construct a shopping center and related parking areas. The shopping center is completed in October 1985. In December 1985, the shopping center and three-fourths of the parking area are opened to the general public. At that time, the entire parking area of the shopping center has been graded and three-fourths has been paved, but the final asphalt coating has not been laid due to general weather conditions.

Under these circumstances, the contract to construct the shopping center and parking area is considered completed for Federal income tax purposes in December 1985, because the shopping center and a major portion of the parking area were ready to be used and were used at that time.

# APPENDIX 10-D

# COMPLETED-CONTRACT ACCOUNTING FOR DISPUTES

*In application of the completed-contract method, complications may arise in the accounting for amounts in dispute. The following regulations describe how to account for amounts in dispute when using the completed-contract method.*

**Reg. 1.451-3(d)**

**(2) Contracts with disputes from buyer claims**

(i) This subparagraph applies in any case where, on or after a taxpayer tenders the subject matter of a long-term contract to the party with whom he is contracting, there exists an amount reasonably in dispute because such party wishes to have the original contract price reduced or to have additional work performed on the contract. Any item of income or deduction with respect to an amount reasonably in dispute shall be taken into account in the taxable year in which such dispute is resolved. In addition, any item of income or deduction which is properly allocable to such contract and which is not included in or deducted from gross income in a prior taxable year pursuant to subdivisions (ii), (iii), (iv), or (v) of this subparagraph and which is not taken into account under the preceding sentence shall be included in or deducted from gross income in the taxable year in which the final dispute is resolved.

(ii) If the amount reasonably in dispute affects so much of the contract price that it is not possible to determine whether a profit (an excess of the gross contract price over the costs properly allocable to such contract) or loss (an excess of the costs properly allocable to the long-term contract over the gross contract price) will ultimately be realized on such contract, then no item of income or deduction which is properly allocable to such contract shall be included in or deducted from gross income in the taxable year in which such contract is completed (without regard to such dispute).

(iii) In all other cases, the entire amount of the gross contract price reduced (but not below zero) by an amount equal to the amount reasonably in dispute shall be included in gross income in the taxable year in which such contract is completed (without regard to the dispute).

(iv) If the taxpayer is assured of a profit on such contract regardless of the outcome of the dispute, then all costs which are properly allocable to such contract and which have been incurred prior to the end of the taxable year in which such contract is completed (without regard to the dispute) shall be deducted in such year.

(v) If the taxpayer is assured of a loss on such contract regardless of the outcome of the dispute, then there shall be deducted in the taxable year in which such contract is completed (without regard to the dispute) the total amount of costs properly allocable to such contract which are incurred prior to the end of such year reduced by the amount by which the gross contract price was reduced pursuant to subdivision (iii) of this subparagraph. All other costs which are properly allocable to such contract shall be deducted in the taxable year in which incurred.

## APPENDIX 10-D (CONTINUED)

(vi) For purposes of this paragraph, where there is additional work to be performed with respect to a contract in dispute, the term "taxable year in which the dispute is resolved" means the taxable year in which such work is completed rather than the taxable year in which the outcome of the dispute is determined by agreement, decision, or otherwise.

***

**(3) Contracts with disputes from taxpayer claims**

(i) This subparagraph applies in any case where, on or after a taxpayer tenders the subject matter of a long-term contract to the party with whom he is contracting, a dispute exists because the taxpayer is requesting that the amount to be paid to him under such contract be increased.

(ii) Except as provided in subparagraph (2) of this paragraph, in all cases described in subdivision (i) of this subparagraph, the entire amount of the gross contract price shall be included in gross income in the taxable year the contract is completed (without regard to the dispute), and all costs which are properly allocable to such contract and which have been incurred prior to the end of the taxable year in which such contract is completed (without regard to the dispute) shall be deducted in such year.

(iii) Any item of income which is properly allocable to such contract and which is not included in gross income in a prior taxable year pursuant to subdivision (ii) of this subparagraph shall be included in gross income in the taxable year in which any such dispute (or part thereof) is resolved. Any item of deduction which is properly allocable to such contract and which is incurred in a taxable year subsequent to the year such contract is completed (without regard to the dispute) shall be deducted from gross income in the taxable year in which such item of deduction is incurred.

(iv) For purposes of this paragraph, the term "gross contract price" means the original stated price of the contract with any modifications to which the parties have agreed as of the end of the taxable year. Thus, for example, such term includes any amount which the taxpayer is claiming by virtue of changes in the specifications of the contract which the other parties to the contract have agreed is proper, but it does not include any amount which the contractor is claiming which is disputed by the other parties to the contract. However, no amount is excluded from the term, "gross contract price" solely because a party refuses to pay such amount when due. Thus, for example, if the parties to a contract agree that the gross contract price is $100,000, but a party refuses to pay $60,000 of such amount when due, such refusal does not prevent the gross contract price from being $100,000.

***

**(4) Contracts with disputes from both buyer and taxpayer claims**

(i) This subparagraph applies in any case where, on or after a taxpayer tenders the subject matter of a long-term contract, a dispute exists involving both claims by the taxpayer for an increase in the contract price and claims by the other party to the contract either for a reduction in the contract price or for the performance of additional work under the contract. In any case described in the preceding sentence, principles similar to the principles of subparagraphs (2) and (3) of this paragraph shall be applied.

# APPENDIX 10-E

# EXAMPLES OF APPLYING THE TAX RULES IN DISPUTES

*The following examples illustrate the principles of the regulations presented in Appendix 10-D regarding the accounting for amounts in dispute. These examples were taken directly from the regulations.*

**Section 1.451-3(d)(2) Contracts with disputes from buyer claims**

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Example (1)

X, a calendar year taxpayer utilizing the completed contract method of accounting, constructs a building for Y pursuant to a long-term contract. According to the terms of the contract, the gross contract price is $2,000,000. X finishes construction of the building in 1972 at a cost of $1,900,000. Y examines the building and is dissatisfied with the construction. He demands either alterations or a reduction in the gross contract. The amount reasonably in dispute is $500,000. This dispute affects so much of the contract price that X is unable to determine whether a profit or a loss will ultimately be realized on such contract. Accordingly, pursuant to this subparagraph [1.451-3(d)(2)(ii)], X does not include any portion of the gross contract price in gross income and does not deduct any costs which are properly allocable to the contract until the taxable year in which the dispute is resolved.

Example (2)

A, a calendar year taxpayer utilizing the completed contract method of accounting, constructs a bridge for B pursuant to a long-term contract. The terms of the contract provide for a $10,000,000 gross contract price. A finishes construction of the bridge in 1972 at a cost of $9,500,000. When B examines the bridge, he insists that either certain girders be repainted or that the contract price be reduced. The amount reasonably in dispute is $100,000. Since under the terms of the contract, A would be assured of a profit of at least $400,000 ($10,000,000 - [$9,500,000+$100,000]) even if the dispute were resolved unfavorable to A, $9,900,000 ($10,000,000-$100,000 in dispute) of the gross contract price must be included in A's gross income in 1972 and $9,500,000 of costs must be deducted from A's gross income in 1972 pursuant to this subparagraph. In 1973 A and B resolve the dispute, A repaints certain girders at a cost to A of $60,000, and A and B agree that the contract price is not to be reduced. In 1973 A must include $100,000 ($10,000,000- $9,000,000) in gross income and must deduct $60,000 from gross income.

Example (3)

M, a calendar year taxpayer utilizing the completed contract method of accounting, constructs a plant for N pursuant to a long-term contract. Under the terms of the contract M is entitled to receive $1,000,000 upon completion of the plant. M finishes construction of the plant in 1973 at a cost of $1,200,000. N examines the plant and determines that an elevator operates unsatisfactorily and insists that M either replace the elevator or that the contract price be reduced. The amount reasonably in dispute is $100,000.

## APPENDIX 10-E (CONTINUED)

Under the terms of the contract M would be assured of a loss of at least $200,000 ($1,200,000-$1,000,000) even if the dispute were resolved in favor of M. Pursuant to this paragraph [1.451-3(d)(2)(v)], M must include $900,000 ($1,000,000-$100,000) in gross income for 1973 and must deduct $1,100,000 ($1,200,000-$100,000) from gross income in 1973. In 1974 the dispute is resolved, and M replaces certain components of the elevator at a cost of $50,000. M must include $100,000 ($1,000,000-$900,000) in gross income for 1974, and must deduct $150,000 ($100,000 of previously undeducted costs plus $50,000 of additional costs) from gross income in 1974.

Example (4)

Assume the same facts as in Example (3) except that N is insisting that the contract price be reduced because an elevator has insufficient capacity and that in 1974 the dispute is resolved by a reduction in the gross contract price of $40,000 (from $1,000,000 to $960,000). By the end of 1973, M is assured of a loss of at least $200,000 ($1,200,000-$1,000,000) under the terms of the contract even if the dispute were resolved in favor of M. Pursuant to this subparagraph, M must include in gross income for 1973 $900,000 ($1,000,000- $100,000) and must deduct from gross income in such year $1,100,000 ($1,200,000-$100,000). In 1974, when the dispute is resolved, M must include $60,000 ($960,000-$900,000) in gross income and must deduct $100,000 ($1,200,000- $1,100,000) from gross income.

Example (5)

Assume the same facts as in Example (3) except that N is also insisting that the contract price be reduced by an additional amount because an underground storage facility has insufficient capacity. M determines that the total amount reasonably in dispute is $160,000, $100,000 attributable to the elevator plus $60,000 attributable to the underground storage facility. Under the terms of the contract, M would be assured of a loss of at least $200,000 ($1,200,000-$1,000,000) even if both disputes were resolved in favor of M. Pursuant to this subparagraph, M must include $840,000 ($1,000,000-$160,000) in gross income for 1973 and must deduct $1,040,000 (1,200,000-$160,000) from gross income in 1973. In 1974 the dispute relating to the elevator is resolved, and M replaces certain components of the elevator at a cost of $50,000. M must include $100,000 (the amount of the gross contract price not included in gross income in 1973 by reason of the elevator dispute) in gross income for 1974 and must deduct $150,000 ($100,000 of previously undeducted costs plus $50,000 of additional costs) from gross income in 1974. In 1975, the dispute relating to the underground storage facility is resolved by a reduction in the gross contract price of $20,000 (from $1,000,000 to $980,000). In 1975 M must include $40,000 ($60,000-$20,000) in gross income and must deduct $60,000 (his previously undeducted costs) from gross income.

**Section 1.451-3(d)(3) Contracts with disputes from taxpayer claims**

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Example (1)

S, a calendar year taxpayer utilizing the completed contract method of accounting, constructs a building for T pursuant to a long-term contract. Under the terms of the contract, S is entitled to receive $100,000 upon completion of the building. S finishes construction of the building in 1974 at a cost of $105,000. T

## APPENDIX 10-E (CONTINUED)

examines the building in 1974 and agrees that it meets his specifications; however, as of the end of 1974, S and T are unable to agree as to the merits of S's claim for an additional $10,000 for certain items which S alleges are changes in contract specifications and T alleges are within the scope of the contract's original specifications. Under these circumstances, S must include in income in 1974 the gross contract price of $100,000 and must deduct from gross income in such year the $105,000 of costs. In 1975 the dispute is resolved by a payment to S of $2,000 with respect to his claim. S must include this $2,000 in gross income in 1975.

Example (2)

Assume the same facts as in Example (1) except that S's claim for an additional $10,000 relates to two items which S alleges are changes in contract specifications, namely $7,000 for changes in the heating system and $3,000 for changes in the electrical system. In 1975 the dispute with respect to the electrical system is resolved by a payment to S of $750, and in 1976 the dispute with respect to the heating system is resolved by a payment to S of $1,250 and by S's performance of additional work at a cost of $250. S must include the $750 in gross income for 1975 and the $1,250 in gross income for 1976, and S must deduct the $250 from gross income in 1976.

# CHAPTER 11

# TAXATION OF LARGE CONTRACTORS

## INTRODUCTION

This chapter describes the taxation of contracts and contractors that do not meet the small contractor exemption of Code Section 460. These contractors must use the percentage-of-completion method for revenue recognition. This chapter will provide details on how to apply that method.

Non-exempt contractors may also be required to apply "look-back" to contracts accounted for under the percentage-of-completion method. Under look-back, the contractor "looks back" to the previous years when the contract was still in progress and recalculates gross profit based on actual contract price and costs. To the extent that prior year's gross profit was under- or over-estimated, taxable income and the AMTI is restated, and the related tax liability is recalculated. This chapter will provide details on when the look-back provisions apply and how to make the calculation.

## THE PERCENTAGE-OF-COMPLETION METHOD

Revenue on contracts that are *not* exempt from Code Section 460 must be calculated using the percentage-of-completion method. Details on applying the percentage-of-completion method are provided in Questions 19 through 36 of IRS Notice 89-15, a copy of which is included as Appendix 9-B starting on page 163.

### THE PERCENTAGE-OF-COMPLETION FORMULA

Question 19 of IRS Notice 89-15 requires gross income for each year to be calculated according to the following formula:

$$CGI = (TCR \times PC) - I$$

Where:

CGI = Current year gross income

TCR = Total amount of revenue the taxpayer expects to receive with respect to the contract

PC = Cumulative percentage complete of the contract that has been completed as of the end of the taxable year

I = Total cumulative amount of contract revenue required to be included in gross income in all preceding taxable years

## EXAMPLE 11-1: APPLYING THE PERCENTAGE-OF-COMPLETION FORMULA

Taxpayer X has a $1,000,000 contract. At the end of year X6 the contract was 90% complete. At the beginning of year X6 the contract was 15% complete. Using the formula presented above, the gross income for tax purposes in year X6 is:

$$CGI = (TCR \times PC) - I$$

$$CGI = (\$1,000,000 \times 90\%) - (1,000,000 \times 15\%)$$

$$CGI = \$900,000 - 150,000$$

$$CGI = \$750,000$$

Note that the percentage-of-completion formula for tax purposes is a calculation of gross *income* whereas the calculation for GAAP purposes is one of gross *profit* (gross income minus contract costs). For tax purposes, contract costs are recognized in the year in which they are incurred.

The distinction between gross income and gross profit, by itself, will not produce any differences between financial and tax income, unless the contract is in a loss position.

## EXAMPLE 11-2: RECOGNIZING LOSSES FOR TAX PURPOSES

Assume the following for taxpayer X:

| | X1 | X2 | X3 |
|---|---|---|---|
| (1) Total estimated revenue | $ 400,000 | 400,000 | 400,000 |
| (2) Total estimated cost | 360,000 | 415,000 | 425,000 |
| (3) Estimated GP (Loss) | 40,000 | (15,000) | (25,000) |
| (4) Current year costs | 54,000 | 278,000 | 93,000 |
| (5) Cumulative costs | 54,000 | 332,000 | 425,000 |
| (6) Percent complete (5 ÷ 2) | 15% | 80% | 100% |

For tax purposes, gross income and the current year gross profit would be calculated as follows:

| Gross Income for Tax Purposes | | | |
|---|---|---|---|
| (7) Total contract revenue (1) | $ 400,000 | 400,000 | 400,000 |
| (8) Percent complete (6) | x 15% | x 80% | x 100% |
| | 60,000 | 320,000 | 400,000 |
| (9) Cumulative prior income | (0) | (60,000) | (320,000) |
| (10) Current gross income | 60,000 | 260,000 | 80,000 |
| (11) Current year costs (4) | 54,000 | 278,000 | 93,000 |
| (12) Current GP (Loss) | 6,000 | (18,000) | (13,000) |
| Cumulative GP (Loss) | 6,000 | (12,000) | (25,000) |

The above example illustrates that for tax purposes contract losses are recognized ratably over the completion of the contract. This is different from GAAP, which requires losses to be recognized in their entirety as soon as they are known.

In the above example *all* contract losses would be recognized in year X2 for book purposes. In this case, the contractor estimates the contract will come in at a $15,000 loss. 100% of this loss, together with a reversal of the gross profit recognized to date, would be recorded in year X2. Thus for book purposes the contractor would recognize a $21,000 loss in X2 as compared to the $18,000 loss recognized for tax purposes.

In year X3, the contractor would recognize an additional $10,000 loss for book purposes. For tax purposes, the loss is $13,000.

## DETERMINING TOTAL ESTIMATED CONTRACT PRICE

The first component in the percentage-of-completion formula is total estimated contract price, which is defined as the total amount of revenue the taxpayer expects to receive with respect to the contract. Additional guidance on certain matters is described as follows:

- *Claims, Disputes, and Unapproved Change Orders.* The tax rules are generally silent on the accounting for claims, disputes, and unapproved change orders for the percentage-of-completion method. As a practical matter, many practitioners look to the rules for claims and disputes under the completed-contract method. In general, these rules indicate the contract price would *not* be adjusted for the disputed item until it was resolved. The completed-contract method rules were discussed in Chapter 10. The related regulations and related examples were included in Appendixes 10-D and 10-E. Even though the rules speak only to claims and disputes, unapproved change orders are generally accounted for in the same way.

- *Contract Options, Additions, or Follow-up Contracts.* Normally, contract options, additions, and follow-up contracts are accounted for as separate contracts and are *not* included in the contract price of the original contract. However, you should consult the rules on severing and aggregating contracts found at Regulation Section 1.451-3(e) for any exceptions to this general rule.

**Reading Between the Lines**

It is to your client's advantage to keep claims, change orders, follow-up contracts, etc., *separate* from the original contract price. Not only will this defer some taxable income, it will also simplify the look-back calculation.

Make sure your client's accounting system can identify these items and that they are adequately documented.

- *Subsequent Events.* Chapter 2 of this course discussed the percentage-of-completion method for GAAP purposes. One of the issues raised was whether estimates of contract price, cost to complete, and percentage complete should consider information post-balance sheet date. Although GAAP literature is generally silent on the matter, in practice it's generally wise to use the most current information when applying the percentage-of-completion method for GAAP purposes.

Question 24 of IRS Notice 89-15 (on page 169) specifically addresses the information for tax purposes. The answer to Question 24 says the following:

> Total contract revenue and total contract costs are to be estimated based on the facts and reasonable estimates as of the last day of the taxable year. Events that occur after the end of the taxable year that were not reasonably subject to estimates as of the last day of the taxable year are not taken into account.

Generally this treatment for tax purposes is different from GAAP. See IRS Notice 89-15 for an example of how this rule is applied in practice.

**Reading Between the Lines**

Determining what to include in the original contract price is not well-defined in the tax law. Practitioners will have to exercise judgment to determine the amount the client reasonably expects to receive under the contract. For example, is it "reasonable" to expect the contractor will receive the incentive payments built into the contract for early completion? That is a matter of professional judgment.

Remember, you have *no incentive* to take an aggressive position in this area. The look-back rules require you to "look back" to earlier tax years and recompute income based on actual contract price. Thus, any underreporting of contract price in the current year will surface at the completion of the contract, and payments will be made under look-back.

## DETERMINING PERCENTAGE COMPLETE

The second step in determining gross income under the percentage-of-completion method is to multiply estimated total contract price by the percentage complete. Code Section 460(b) requires percentage of completion to be determined using the cost-to-cost method, described as a comparison of:

> costs allocated to the contract under subsection (c) and incurred before the close of the taxable year with the estimated total contract costs.

The determination of actual contract costs should be done based on the cost capitalization and allocation rules discussed below. This is usually a fairly straightforward calculation; however, practitioners should be careful when considering whether costs have been "incurred."

Question 35 of IRS Notice 89-15 (beginning on page 170) provides guidance on determining when a cost is incurred under the percentage-of-completion method.

> Q35: When are the costs of direct materials and supplies treated as allocable to the contract under the percentage-of-completion method?
>
> A35: The costs of direct materials that are *purchased specifically* for a particular long-term contract are allocable to the contract in the taxable year in which the *costs are incurred.*
>
> The costs of other direct materials and supplies (such as those previously held by the taxpayer) are allocable to the contract in the taxable year in which such materials and supplies are dedicated to the contract. Examples of dedication include the following:

(i) *delivery of materials to the job site* (if only one contract is being performed at that site)

(ii) *association of materials with a specific contract* (for example, by purchase order, entry on books and records, or shipping instructions)

(iii) if not previously assigned, the physical incorporation of the materials into the subject matter of the contract.

The cost that is allocated to a contract is to be determined using the taxpayer's method of accounting for such matters (e.g., specific identification, FIFO, or LIFO) based on the taxable year in which such items are dedicated to the contract (emphasis added.)

**Note:** Q35 contains important criteria for cash basis contractors regarding job cost/inventory issues.

For tax purposes, the definition of when a cost is incurred may accelerate the recognition of income when compared to GAAP.

The above definition requires cost to be recognized when direct materials are *purchased.* For GAAP purposes, direct materials are capitalized when they are *used.*

For example, suppose your client is a roadbuilder that uses asphalt and gravel in the construction of highways. On December 31 all of the gravel for the entire job is delivered to the job site. It has incurred no labor costs on this job, except for a foreman who was there to receive the materials.

For GAAP purposes, the percentage complete would be zero (or close to it.) Materials that have not been used do not count for purposes of determining percentage complete. For book purposes, you can't recognize revenue just by buying materials.

For tax purposes, the delivery of materials to the job site meets the definition of incurred cost. The cost of the asphalt and gravel *would be included* for purposes of determining percentage complete. If these materials comprise 20% of the estimated total job costs, then for tax purposes the job is considered 20% complete, even though the materials have not been used in the job.

**Value-Added Services**

During the tax planning session with your clients, ask them about any large purchases of materials they plan before year-end. Remember that these purchases will be counted as incurred costs for the purposes of determining taxable income. This will accelerate the payment of taxes.

In situations where the contractor plans to purchase large quantities of materials that will not be used before year-end, have the contractor delay the purchase until the following tax year.

**Caveat:** You should exercise caution in delaying the recognition of contract costs (and the related recognition of income). In a coordinated issue paper (ISP) effective March 21, 1997, the IRS stated that contractors cannot postpone the recognition of subcontractor's costs in order to postpone income under the percentage-of-completion method.

In the case in question, the taxpayer modified its method of accounting for subcontractor costs. Previously, it used the accrual basis, recognizing the costs when the work was performed and the bill from the subcontractor received. In an attempt to defer income to subsequent periods, the taxpayer then changed its method of accounting to the cash basis, recognizing subcontractor costs only when the bill was paid. In its ISP, the IRS found the taxpayer's change in accounting method to be improper and cautioned those who use the percentage-of-completion method of accounting.

## SIMPLIFIED COST-TO-COST

In general, Code Section 460 requires the use of the cost-to-cost method for determining percentage complete.

However, under Code Section 460(b)(3)(A) and Section VII of IRS Notice 87-61, contractors who use the percentage-of-completion method for tax purposes may use a simplified cost-to-cost method to compute percentage-of-completion revenue. If this method is used, the 10% method described below is not available.

Under the simplified cost-to-cost method, only three elements of costs are used to determine cost incurred to date and total estimated costs for purposes of determining percentage complete. Those three costs are:

- Direct materials.
- Direct labor, including subcontractors.
- Depreciation, amortization, and cost recovery allowances on equipment and facilities used directly on the contract.

Note that the simplified cost-to-cost method is only a shortcut to determining the percentage complete. It is *not* a cost capitalization and allocation method. Contractors who use the percentage-of-completion method for tax purposes still must capitalize and allocate costs in accordance with the rules discussed below.

The advantage to using the simplified cost-to-cost method is that it does simplify the calculation of percentage complete. This advantage must be carefully considered against the following disadvantages:

- Contractors who elect the simplified cost-to-cost method are prohibited from electing the 10% method described below.
- The simplified cost-to-cost method is different from the cost-to-cost method used for GAAP purposes. Therefore contractors who elect to use the simplified method will have to make two percentage-of-completion calculations for each contract.

- For bidding, budgeting, and day-to-day job management purposes, most contractors usually have an "all-inclusive" cost system. It may be easier to simply use the contractor's existing accounting system rather than try to segregate the three components used for the simplified cost-to-cost method.

### THE 10% METHOD

Under Code Section 460(b)(5), a taxpayer may elect to use the so-called "10% method." This method allows the taxpayer to defer recognition of gross profit until the job is at least 10% complete. This election also applies to the AMT calculation. Gross profit deferred under the 10% method will not be taxed under AMT.

## COST CAPITALIZATION AND ALLOCATION

The cost capitalization and allocation rules for large contractors are described in Code Section 460(c) and Regulation Section 1.451(d)(6). Basically, these rules require the following costs to be capitalized and allocated to contracts:

- Direct costs;
- Indirect costs that directly benefit the performance of the contract or are incurred by reason of performance of the contract; and
- Production period interest, as described in Code Section 263(A).

Exhibit 11-1 on the following page summarizes the cost capitalization rules for large contractors.

As stated previously, IRS Notice 89-15 describes when capitalizable costs are incurred and should be recognized. These rules are different from the recognition rules under GAAP.

## LOOK-BACK

Look-back is the calculation of interest due to or receivable from the government as a result of over- or under-estimating a job's profitability during the years before the job was completed. Look-back is the application of 20/20 hindsight. It is Monday Morning Quarterbacking. It is the answer to the question, "If you knew then what you know now about this job, how much income would you have reported?"

The look-back rules are clearly designed to protect the government from contractors *under*estimating their gross profit. But the rules also protect the taxpayers from overpayment of taxes due to *over*estimating gross profits.

In order to reinforce compliance, the look-back interest due is considered a tax. This means that failure to comply with the look-back rules will result in the assessment of penalties and interest. However, for purposes of determining penalties for the underpayment of estimated taxes, look-back is not considered.

**Exhibit 11-1**

**Cost Capitalization Rules for Large Contractors**

| Capitalize | Do *Not* Capitalize |
|---|---|
| *Code Section 460*<br>Production period interest | |
| *Regulation Section 1.451-3(d)(6)*<br>Direct materials<br>Direct labor | *Regulation Section 1.451-3(d)(6)* |
| Indirect costs<br>■ Repair and maintenance of equipment or facilities used in the performance of the contract.<br>■ Utilities relating to equipment or facilities used in the performance of the contract.<br>■ Rent of equipment or facilities used in the performance of the contract.<br>■ Indirect labor and contract supervisory wages.<br>■ Indirect materials and supplies.<br>■ Tools and equipment not capitalized.<br>■ Costs of quality control and inspection.<br>■ Taxes otherwise allowable as a deduction under Section 164 to the extent they are attributable to labor, materials, supplies, equipment, or facilities.<br>■ Depreciation, amortization, and cost recovery allowances reported for *tax purposes* on equipment and facilities.<br>■ Cost depletion incurred in the performance of the contract.<br>■ Administrative costs directly attributable to the performance of the contract. | Indirect costs<br>■ Marketing and selling expenses.<br>■ Expenses of unsuccessful bids.<br>■ Advertising.<br>■ Other distribution expenses.<br>■ General and administrative expenses attributable to the performance of services that benefit the contractor's activities as a whole.<br>■ Research and experimental expenses neither directly attributable to the contract nor incurred under any agreement to perform research or experimentation.<br>■ Losses under Section 165.<br>■ Depreciation, amortization, and cost recovery allowances reported for *financial purposes* on equipment and facilities.<br>■ Depreciation, amortization, and cost recovery allowances on idle equipment and facilities.<br>■ Income taxes attributable to income received from long-term contracts. |

*(continued)*

**Exhibit 11-1** (Continued)

| Capitalize | Do *Not* Capitalize |
|---|---|
| *Code Section 460*<br>Production period interest | |
| *Regulation Section 1.451-3(d)(6)*<br>Direct materials<br>Direct labor | *Regulation Section 1.451-3(d)(6)* |
| Indirect costs<br>■ Compensation paid to officers attributable to services performed on the contract.<br>■ Cost of insurance incurred in the performance of the contract.<br>■ Administrative costs directly attributable to the performance of the contract.<br>■ Contributions paid to or under a stock bonus, pension, profit-sharing, or similar plan.<br>■ Research and experimental expenses.<br>■ Rework labor, scrap, and spoilage.<br>■ Bidding expenses for contracts ultimately awarded. | Indirect costs<br>■ Contributions to or under a pension or annuity plan allowable as a deduction under Section 404.<br>■ Cost attributable to strikes.<br>■ Compensation paid to officers that does not directly benefit or is not incurred by reason of the contract. |

The look-back rules are contained in Code Section 460, Regulations Section 1.460-6, and Temporary Regulations Section 1.460-6T(j), effective January 13, 1998. The regulations contain numerous examples to illustrate how the rules should be applied.

## WHEN TO CALCULATE LOOK-BACK

In general, all contractors that are required to report income under the percentage-of-completion method must calculate look-back. Contractors who qualify for the small contractor exemption (see Chapter 10) are exempt from the look-back calculations for regular tax purposes but not for AMT purposes.

As with the other tax rules that affect construction contractors, look-back is applied to individual contracts, not contractors. It is applied to all contracts completed during the year with the following exceptions:

- Home construction contracts.
- Contracts that qualify for the de minimis exemption described in Regulation Section 1.460-6(b)(3).

Generally, in order to qualify for the de minimis exemption a contract must meet both of the following two conditions:

- The contract was completed within two years; and
- The contract has a gross contract price that is less than the lesser of:
  - $1,000,000, or
  - 1% of the average annual gross receipts of the taxpayer for the three preceding tax years.

The Taxpayer Relief Act of 1997 simplified the application of the look-back calculation by introducing a new de minimis test. For contracts completed after August 5, 1997, the Act allows taxpayers to elect to forgo the look-back method (and avoid the calculation) if the estimated income recognized in each contract year falls within 10% of the actual income for each contract [Sec. 460(b)(6), as amended].

If the contractor makes this election, the look-back calculation is *not* reapplied in years after the contract is completed, provided the cumulative actual income from the contract does not exceed 10% of the cumulative income determined in the most recent year in which the look-back method was applied (or would have applied except for the *de minimis* exception described above).

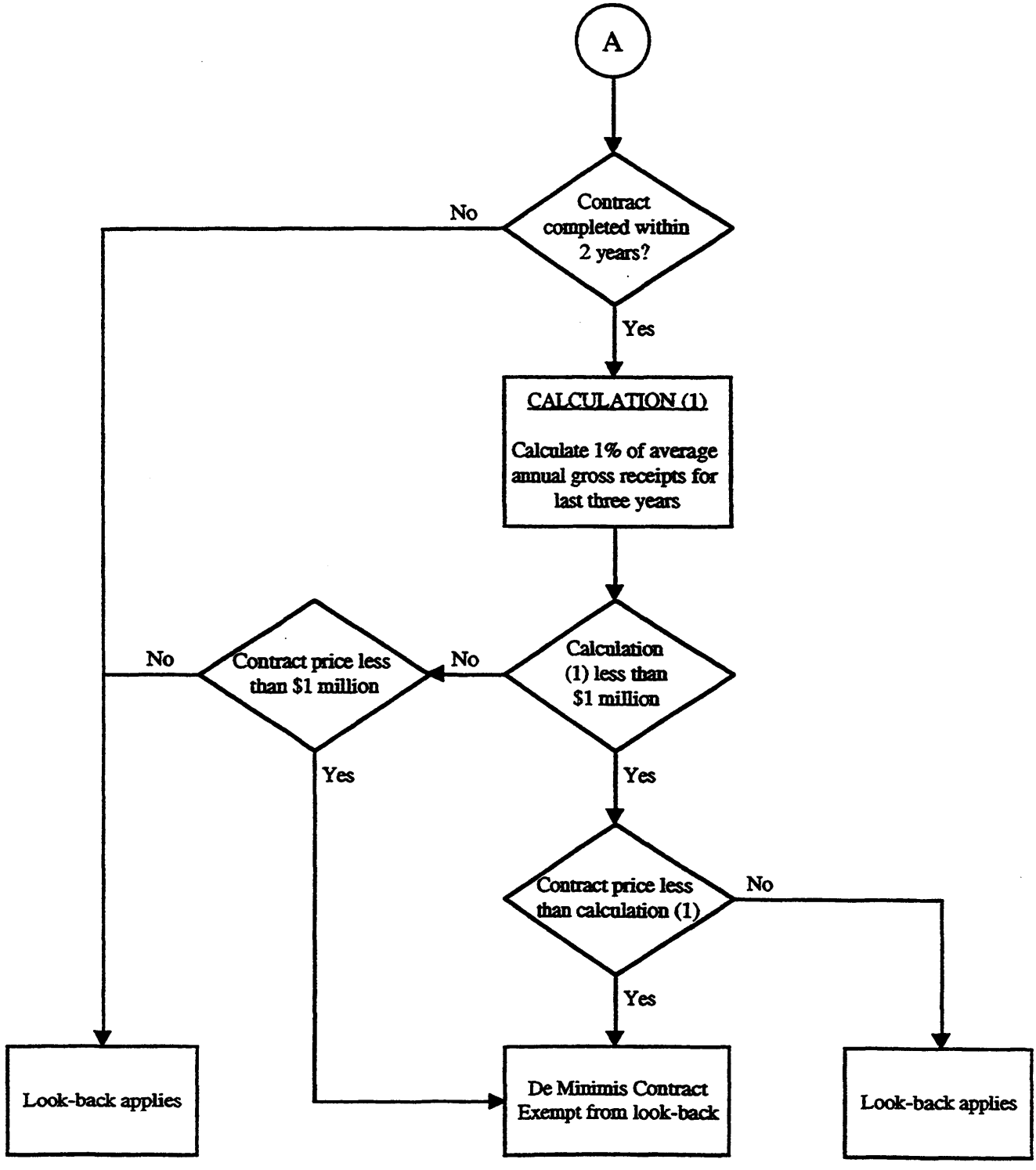
New Temporary Regulations Section 1.460-6T(j), effective January 13, 1998, implements this provision. The decision flowchart on page 216 will help you determine if the look-back de minimis exception has been met for long-term contracts completed **before** August 5, 1997. For long-term contracts completed on or after August 5, 1997, the decision flowchart on page 217 will help you determine if the de minimis exception has been met.

## THE LOOK-BACK CALCULATION

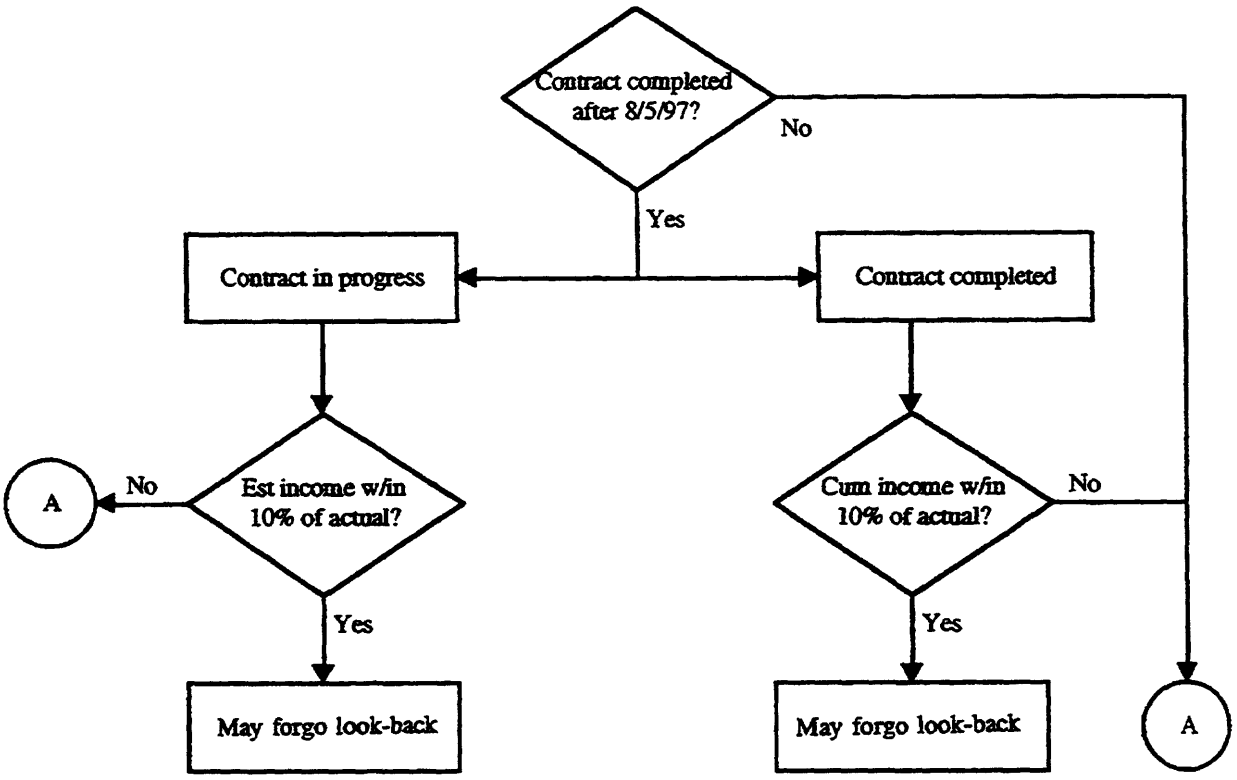
The look-back calculation is a three-step process (see example 11-3):

1. Hypothetically reapply the percentage-of-completion method using actual (rather than estimated) total contract price and contract costs.
2. Calculate the hypothetical over- or under-payment of tax by comparing the tax liability determined in Step 1 to the reported tax liability.
3. Apply interest to the amount of over- or under-payment calculated in Step 2.

**De Minimis Exemption for Look-Back Computation**



**De Minimis Exemption for Look-Back Computation** (Continued)



**Reading Between the Lines**

The regulations are silent as to what constitutes "gross receipts." Presumably this is the same definition as the one used to determine gross receipts for the small contractor exemption [Reg. Sec. 1.451-3(b)(3)(iii)(B)]. In other words, gross receipts include the gross receipts of trades or businesses under common control.

This definition works to the taxpayer's advantage. By including the gross receipts of entities under common control, the threshold for the de minimis exemption is raised, and fewer contracts will be subject to look-back.

**Note**: For all long-term contracts completed in taxable years ending after August 5, 1997, Temporary Regulations Section 1.460-6T(j) applies. Thus, in the year in which the contract is completed, the contractor would apply the first step to determine whether the difference between the income computed using estimates and the income computed using the actual contract price and costs was de minimis in amount (i.e., where taxable income or loss is within 10% of the cumulative look-back income or loss). If so, the contractor, which has elected to forgo the look-back calculation, does not have to apply Steps 2 and 3.

The final step in the look-back calculation is to calculate the interest due on the over- or under-payment of taxes. This calculation is made using the overpayment rate of Section 6621. The time period for determining interest runs from the due date of the return for the redetermination year to the earlier of the due date or filing date of the current year.

Look-back calculations are filed on Form 8697. If net interest is due *to* the IRS, this form is filed with the tax return. If net interest is due *from* the IRS, the form should be filed separately.

## SPECIAL CONSIDERATIONS IN APPLYING LOOK-BACK

### Post-Completion Revenue and Expense

The regulations require that look-back be calculated no later than the year the contract is "complete." In this context, "complete" has the same definition it has under the completed-contract regulations discussed in the last chapter, that is, when final completion and acceptance have occurred. The look-back calculation must be made even if the contractor reasonably expects to incur additional contract costs.

In general, when post-completion costs are incurred or post-completion revenues received, a contractor must perform additional look-back calculations. Regulation Section 1.460-6(e) provides an exception to this general rule known as the "delayed reapplication method."

## Example 11-3: Look-Back Calculation

Assume the following for a given contract:

| **Year X1** | | Contract A | Contract B |
|---|---|---|---|
| 1. | Contract price | $ 500,000 | 375,000 |
| 2. | Estimated total costs | 370,000 | 340,000 |
| 3. | Estimated total gross profit | 130,000 | 35,000 |
| 4. | Actual costs for year X1 | 170,000 | 120,000 |
| 5. | Percent complete (4 ÷ 2) | 46% | 35% |
| 6. | Year X1 gross profit (5 x 3) | 59,800 | 12,250 |
| **Year X2** | | | |
| 7. | Revised contract price | $ 550,000 | 375,000 |
| 8. | Actual total costs | 430,000 | 320,000 |
| 9. | Actual total gross profit | 120,000 | 55,000 |
| 10. | Actual costs year X2 | 260,000 | 200,000 |
| 11. | Percent complete ([4 + 10] ÷ 8) | 100% | 100% |
| 12. | Year X2 gross profit (9 - 6) | 60,200 | 42,750 |

Based on the above, the first two steps of the look-back calculation would be determined as follows:

| | | |
|---|---|---|
| X1 actual costs (4) | $ 170,000 | 120,000 |
| Actual total costs (8) | ÷ 430,000 | ÷ 320,000 |
| Percent complete for look-back | 40% | 38% |
| Actual gross profit (9) | x 120,000 | x 55,000 |
| Look-back gross profit for year X1 | 48,000 | 20,900 |
| Gross profit reported for year X1 (6) | (59,800) | (12,250) |
| (Over) understatement of gross profit | (11,800) | 8,650 |

In this example, the contractor overstated gross profit for Contract A in X1 and would be entitled to a look-back refund. The gross profit for Contract B was understated, and the contractor would have to perform a test to determine if look-back interest is owed to the IRS. If the contract was completed after August 5, 1997, you would have to check to see if the estimate was within 10% of actual income. In this case, it was not, and therefore, the contractor would *not* be allowed to forgo the look-back calculation.

**Practical Tax Tip**

Contract B in example 11-3 experienced a profit "pick up" of $20,000, that is, the original gross profit estimate was $35,000, and the job actually came in at a gross profit of $55,000. Jobs that experience profit "pick up" will always result in an *under*statement of gross profit and look-back interest due.

On the other hand, Contract A experienced profit fade of $10,000 — the original gross profit estimate was $130,000 and the job actually came in at $120,000. This profit fade resulted in the contractor's *over*estimating gross profit for year X1, which entitled it to a look-back refund.

Jobs with profit fade will result in look-back refunds. Advise your clients to close these jobs before the end of the tax year if possible, since that will entitle them to collect their look-back refund.

The delayed reapplication method is designed to minimize the number of required reapplications of the look-back method and is available for multiple post-completion adjustments. Under the delayed reapplication method, the taxpayer is allowed to accumulate settlements for up to five years or until the price or cost adjustments exceed $1,000,000 or 10% of the contract price as of that time.

The contractor also has the option to discount post-completion revenues and expenses. This discount will lower the value of post-completion adjustments.

The discount rate for this purpose is the federal mid-term rate under Section 1274(d) in effect at the time the amount is properly taken into account. Unless the contractor elects *not* to discount post-completion adjustments for a given contract, they must be discounted from the date they are incurred back to the contract completion date.

**Value-Added Advice**

The election to discount is made on a contract-by-contract basis. Activities that are discounted for one contract need not be discounted for others.

Discounting revenue will result in a lower amount of gross profit for look-back purposes. Therefore, it's to your client's advantage to discount all contracts that have net post-completion revenue.

Discounting expenses will result in a higher amount of gross profit. Thus, you should elect *not* to discount all contracts that have net post-completion expenses.

### 10% Deferral Method

Contractors who elect the 10% deferral method (discussed earlier in this chapter) must also use the 10% method to compute look-back. For this calculation, *actual* total contract costs are used to determine the 10% threshold. Thus, for look-back purposes, the 10% year may be different from the originally estimated 10% year.

### Non-Closely Held Pass-Through Entities

The regulations provide for a special method for calculating look-back for non-closely held pass-through entities. This method, known as the "simplified marginal impact method," is described in Regulation Section 1.460-6(d)(1).

## SUMMARY

This chapter discussed the tax rules for "large" contractors, that is, those contractors and contracts that are *not* exempt from Code Section 460. Those contractors are required to use the percentage-of-completion method for recognizing revenue and to calculate look-back interest.

The first half of this chapter described the details of the percentage-of-completion method, including how losses are effectively deferred, how estimated total contract price should be determined, and how the cost-to-cost method should be used to determine percentage complete. In determining when a cost has been incurred, the tax rules are significantly different from GAAP and effectively result in the acceleration of income recognition for tax purposes.

The second half of the chapter focused on look-back, including a discussion of when look-back should be calculated and what contracts are exempt from the calculation. Each step in the three-step look-back calculation was then described in detail.

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