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INDUSTRY AUDIT GUIDE

AUDITS OF GOVERNMENT CONTRACTORS

PREPARED BY THE TASK FORCE ON DEFENSE CONTRACT AGENCIES

Second Edition

Including
STATEMENT OF POSITION

ISSUED BY THE ACCOUNTING STANDARDS DIVISION

Note: This volume includes the industry audit guide, Audits of Government Contractors, as it was originally published in 1975, and Statement of Position 81-1, Accounting for Performance of Construction-Type and Certain Production-Type Contracts, issued by the accounting standards division in 1981. In using this guide, readers should refer to the additional material in the statement of position (pages 81-134), which was not available when the guide was issued.

Don Pallais
Director, Audit
and Accounting Guides

AUDITS OF GOVERNMENT CONTRACTORS

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Chapter I

Contract Procurement

Introduction

The purpose of this audit guide is to provide a general background in government contract auditing for the independent auditor who has clients rendering services under government-related contracts (either prime or subcontracts) with the U.S. Government.

Contractors performing under government contracts are governed, depending upon the contracting agency, by the provisions of the Armed Services Procurement Regulations (ASPR), the Atomic Energy Commission Procurement Regulations, the National Aeronautic and Space Administration Procurement Regulations, or the Federal Procurement Regulations (FPR). These regulations have been issued to establish uniform policies and procedures relating to the procurement of supplies and services under the authority of Chapter 137, Title 10, of the United States Code or under other statutory authority.

It is the policy of the federal government to procure supplies and services from responsible sources at fair and reasonable prices calculated to result in the lowest cost to the government. It is also the stated policy of the federal departments and agencies to utilize profit incentives to stimulate efficient contract performance. Procurement regulations caution contracting officers that negotiation of arbitrarily low profits, the use of historical averages, or the automatic application of predetermined profit percentages to the total estimated cost of a product does not provide the motivation to accomplish effective and economical contractor performance. Furthermore, regulations state that unreasonably low aver-

age profit rates on government contracts overall are detrimental to the public interest. The government recognizes that effective procurement in a free enterprise economy requires that the best available talents and resources be attracted to government contracting. Contracts are generally awarded in the following categories:

- 1. Contracts for items to be delivered or services to be performed.
- 2. Research and development contracts.
- 3. Construction contracts.
- 4. Facilities contracts for the acquisition, construction, or operation of plant and production equipment.

Methods of Procurement

The two basic methods of government procurement are by formal advertising and negotiation. By law, the preferred method of procurement is formal advertising. Negotiated procurements are permitted only under certain defined exceptions to the preferred method, although these exceptions are used in a significant number of procurement actions.

Formal Advertising. Procurement by formal advertising covers four phases of government involvement: (a) preparation of invitation for bids, (b) publication and distribution of invitation for bids to companies appearing on qualified bidders listings, (c) receipt of bids in response to the invitation, and (d) award of contract to the lowest responsive and responsible bidder whose bid is most advantageous to the government, price and other factors considered.

Negotiated Procurement. "Negotiation" pertains to procurements made without the use of formal advertising. Requests for quotations or requests for proposals (commonly referred to as RFQs and RFPs) for the item to be procured are mailed to contractors whose names appear on qualified bidders listings. Contractors responding to an RFQ submit only total item contract price quotations; contractors responding to an RFP usually support the total price by submitting cost and pricing data (usually DD Form 633), or other evidence of reasonable price, and in

certain instances data regarding technical and management plans and capabilities for the job. The contracting officer may accept price quotations or proposals without negotiation, or he may conduct price negotiations with those firms whose offer falls within a competitive range. He may analyze, question, require audit, and bargain in vital areas of the proposals including costs and profit, performance requirements, delivery schedules, methods of payments, and so forth.

Types of Contracts

Generally contracts may be classified within two broad categories, namely, fixed-price contracts and cost contracts. Fixed-price contracts provide for a stated contract price, a specified scope of work, and a specified performance schedule but may be subject to adjustment based on the application of economic price adjustment (escalation), redetermination, incentive, or other pricing provisions. Cost contracts provide for reimbursement of allowable or otherwise defined costs incurred plus a fee (profit) in most cases. Such a contract requires only that the contractor use his best efforts to accomplish the scope of work within a specified time and within the stated contract dollar limitation.

It should be noted that an important distinction between the two basic categories of contracts defined above is that a fixed-price contract obligates the contractor to a firm responsibility for performance whereas a cost contract obligates the contractor on a best-efforts basis. Within these two broad categories there are presently a number of variations, the more common of which are described below.

Fixed-Price Contracts

Firm fixed-price contract—A contract in which the price is not subject to any adjustment by reason of the cost experience of the contractor or his performance under the contract.

Fixed-price contract with economic price adjustment—A contract which provides for upward or downward revision of contract price upon the occurrence of specifically defined contingencies, such as increases or decreases in material prices or labor wage rates.

Fixed-price contract providing for prospective periodic redetermination of price—A contract which provides a firm fixed-price for an initial number of unit deliveries or for an initial period of performance and for prospective price redeterminations either upward or downward at stated intervals during the remaining period of performance under the contract.

Fixed-price contract providing for retroactive redetermination of price—A contract which provides for a ceiling price and retroactive price redetermination (within the ceiling price) after the completion of the contract, based on costs incurred, with consideration being given to management ingenuity and effectiveness during performance.

Fixed-price contract providing for firm target cost incentives—A contract which provides at the outset for a firm target cost, a firm target profit, a price ceiling (but not a profit ceiling or floor), and a formula (based on the relationship which final negotiated total cost bears to total target cost) for establishing final profit and price.

Fixed-price contract providing for successive target cost incentives—A contract which provides at the outset for an initial target cost, an initial target profit, a price ceiling, a formula for subsequently fixing the firm target profit (within a ceiling and a floor established along with the formula, at the outset), and a production point at which the formula will be applied.

Fixed-price contract providing for performance incentives—A contract which incorporates an incentive to the contractor to surpass stated performance targets by providing for increases in the profit to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.

Fixed-price level-of-effort term contract—A contract which usually calls for investigation or study in a specific research and development area. It obligates the contractor to devote a specified level of effort over a stated period of time for a fixed dollar amount.

Cost Contracts

Cost-sharing contract—A contract under which the contractor is

reimbursed only for an agreed portion of costs and under which no provision is made for fee.

Cost-without-fee contract—A contract under which the contractor is reimbursed for costs with no provision for a fee.

Cost-plus-fixed-fee contract—A contract under which the contractor is reimbursed for costs plus the provision for a fixed fee.

Cost-plus-award-fee contract—A contract under which the contractor is reimbursed for costs plus a fee consisting of two parts: (1) a fixed amount which does not vary with performance and (2) an award amount based on performance in areas such as quality, timeliness, ingenuity, and cost-effectiveness. The amount of award fee is based upon a subjective evaluation by the government of the contractor's performance judged in light of criteria

set forth in the contract.

Cost-plus-incentive-fee contract (Incentive based on cost)—A contract under which the contractor is reimbursed for costs plus a fee which is adjusted by formula in accordance with the relationship which total allowable costs bear to target cost. At the outset there is negotiated a target cost, a target fee, a minimum and maximum fee, and the adjustment formula.

Cost-plus-incentive-fee contract (Incentive based on performance)—A contract under which a contractor is reimbursed for costs plus an incentive to surpass stated performance targets by providing for increases in the fee to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.

Under cost contracts statutory limitations have been imposed on fees negotiated at the outset of the contract as follows:

- 1. Fees for experimental, developmental, or research work cannot be more than 15 percent of estimated cost.
- 2. Fees for architectural or engineering services for a public work or utility cannot be more than 6 percent of estimated cost.
- 3. Fees on other cost contracts cannot be more than 10 percent of estimated cost.

It should be noted that fixed-price and cost incentive contracts may include a combination of both cost and performance incentives.

In addition to the two broad categories of contracts described above, there is a *time and material contract*. Under this type of contract the contractor is paid on the basis of direct-labor hours, expended at fixed hourly rates (that include direct-labor, indirect expenses, and profit), and the costs of materials or other specified costs.

There is a preliminary contractual instrument (letter contract) which may be used to authorize immediate manufacture of supplies or performance of services. The letter contract must be superseded by a definitive contract at the earliest possible date, but usually not later than the expiration of 180 days from the date of the letter contract or completion of 40 percent of the production or services called for under the contract, whichever occurs first. All letter contracts are required to contain a stated maximum government liability that generally does not exceed 50 percent of the total estimated cost of the procurement.

Contract Financing Assistance

In the interest of national security the government provides contracting firms with financial assistance, if needed, under contracts for the procurement of supplies or services or for research and development contracts. It is the stated policy of the government not to consider the need for financing a deterrent in awarding contracts. The types of financing available in a specific situation depend upon the nature of the contract, the need of the contractor, and in some instances, the statutory restrictions imposed by Congress. For additional information relating to defense contract financing see Appendix E of the Armed Services Procurement Regulations and Part 1-30 of the Federal Procurement Regulations.

The more common methods of financing are as follows:

Progress Payments. The most common method of making funds available to the contractor is by means of payments during performance of the contract according to specified progress. The government acquires title to the work in progress.

Advance Payments. Advance payments are available to contractors whose developmental or preliminary costs prior to performance under the contract are such that the contractor would be under undue financial hardship before earning any return on the contract. This type of payment is only available to prime contractors; however, they may be made to the prime contractor for the purpose of making similar advances to subcontractors.

Guaranteed Loans. The government will enter into an agreement with a private financial institution whereby it will guarantee all or a part of a loan made to a contractor engaged in national defense. The government becomes obligated to share the losses on the loan with the lender to the extent of the guarantee percentage.

When a contractor prefers to deal with a private lending institution without government aid, he can assign payments aggregating \$1,000 or more due under the contract to a financial institution as security for a loan pursuant to the Assignment of Claims Act of 1940, as amended.

Other Rules, Regulations, and Requirements

Companies engaged in government contracting are subject to certain rules and requirements set forth in the applicable procurement regulations. Sections of these regulations covering contract clauses, terminations, and contract costing principles are of particular importance to the accountant. In addition, general familiarity with the pronouncements of the Cost Accounting Standards Board and regulations of the Renegotiation Board is important.

The government has significant rights in the award and control of government contracts and related subcontracts not generally found in contracts between commercial enterprises. Some of the more important rights permit the government to do the following:

- 1. Negotiate contract price adjustments depending on contract type or specific contract clauses.
- 2. Disallow specific costs and expenses.
- 3. Require advance agreements by contractor before sharing in certain costs and expenses.

- 4. Provide government-furnished material or equipment.
- 5. Terminate contracts at convenience of the government.
- 6. Provide certain incentives or assess penalties based on performance.
- 7. Direct changes at any time within the general scope of the contract subject to an equitable adjustment of the contract price.
- 8. Subject the contractor to preaward and postperformance audits of costs of certain contracts.
- 9. Require contractors to disclose their cost accounting practices and to agree to consistently follow those practices in advance of submitting a price proposal on a contract.

Chapter 2

Government Contract Accounting and Financial Reporting

Introduction

This chapter explains the accounting principles and practices and financial reporting characteristics of government contractors, which are not generally applicable to other types of business enterprises. Government contract accounting and financial reporting are influenced by unique aspects of the industry. Important among these unique aspects are (1) the long-term nature of many government contracts, often extending over more than one reporting period; (2) the necessity for estimating contract costs often for products or services not previously provided; (3) the rights and obligations of the government contractor not often found in other business activities; and (4) the cost accounting and various other requirements imposed on the government contractor by law or government procurement regulations.

It is, of course, not practical to discuss in detail the many different situations that may arise having accounting and financial reporting significance. This chapter provides basic information on government contract accounting and reporting matters. This information should be helpful to accountants who have not had experience in government contract accounting, and it may also serve as a reference point in considering accounting and financial reporting questions which will arise in situations not specifically covered.

The American Institute of Certified Public Accountants and the Financial Accounting Standards Board have, over the years, issued pronouncements on generally accepted accounting principles. Some of these pronouncements have an important bearing on government accounting matters and are cited in this chapter.¹

Summary of Accounting Principles and Practices

The Accounting Principles Board, in its Statement No. 4 (October 1970), discussed in a descriptive, rather than prescriptive, sense basic concepts and accounting principles underlying financial statements of business enterprises. The board stated that it believed the accounting principles described in that statement were those that were generally accepted at that time but cautioned that it had not evaluated or approved the then present generally accepted accounting principles except to the extent that principles had been adopted in board opinions. Nevertheless, portions of two of the pervasive measurement principles described in Statement No. 4 relate directly to the discussion in this chapter on government contract accounting matters and are summarized here for reference purposes.

Revenue Recognition. Revenue is conventionally recognized when the activity surrounding the sale of products or rendering of services is complete or virtually complete. However, revenue is sometimes, as in the case of long-term contracts, recognized as performance progresses. This exception is based on the consensus that a better measurement of periodic income results.² Accounting Research Bulletin No. 43, chapter 11, section A, paragraph 13, states:

It is, however, a generally accepted accounting procedure to accrue revenues under certain types of contracts and thereby recog-

¹ The Committee on Accounting Procedure issued its pronouncements in Accounting Research Bulletins. The successor body, the Accounting Principles Board, issued its pronouncements in Opinions and Statements. The Financial Accounting Standards Board replaced the APB as of July 1, 1973 and issues its pronouncements in Statements of Financial Accounting Standards.

² Accounting Principles Board Statement No. 4 (New York: American Institute of Certified Public Accountants, 1970), paragraphs 150-152.

nize profits, on the basis of partial performance, where the circumstances are such that total profit can be estimated with reasonable accuracy and ultimate realization is reasonably assured. Particularly where the performance of a contract requires a substantial period of time from inception to completion, there is ample precedent for pro rata recognition of profit as the work progresses, if the total profit and the ratio of the performance to date to the complete performance can be computed reasonably and collection is reasonably assured. Depending upon the circumstances, such partial performance may be established by deliveries, expenditures, or percentage of completion otherwise determined. This rule is frequently applied to long-term construction and other similar contracts; it is also applied in the case of contracts involving deliveries in instalments or the performance of services. However, the rule should be dealt with cautiously and not applied in the case of partial deliveries and uncompleted contracts where the information available does not clearly indicate that a partial profit has been realized after making provision for possible losses and contingencies.

Expense Recognition. Expenses (costs associated with revenue) are recognized on the basis of presumed direct association with revenues or indirect association through allocation in a systematic and rational manner among the periods benefited.³ Notwithstanding such conventional treatment there is precedent under certain conditions for allocating certain of such expenses to contract costs rather than period income. One such exception to conventional practice is stated in Accounting Research Bulletin No. 45, paragraph 10, as follows:

When the completed-contract method is used, it may be appropriate to allocate general and administrative expenses to contract costs rather than to periodic income. This may result in a better matching of costs and revenues than would result from treating such expenses as period costs, particularly in years when no contracts were completed. It is not so important, however, when the contractor is engaged in numerous projects and in such circumstances it may be preferable to charge those expenses as incurred to periodic income. In any case there should be no excessive deferring of overhead costs, such as might occur if total overhead were assigned to abnormally few or abnormally small contracts in process.

³ Accounting Principles Board Statement No. 4 (New York: American Institute of Certified Public Accountants, 1970), paragraphs 154-159.

Another exception may occur in connection with cost contracts where reimbursable costs (which would include general and administrative expense) and fees are the determinants for the amount of recorded revenue: "Under a true cost-reimbursement contract, unbilled accumulated costs determined in accordance with contract terms generally represent an acceptable basis for inventory accounting purposes." In such cases, all unbilled costs often are included in contract costs rather than some portion of unbilled costs being charged to period income.

Accounting Methods Followed for Government Contracts

There are three generally accepted methods of accounting for government contracts—percentage-of-completion, completed contract, and unit-of-delivery. Each of these methods is briefly described in the following paragraphs together with a discussion of some of the circumstances under which they are used and the reasons ordinarily cited for their application.

Percentage-of-Completion Method. The percentage-of-completion method recognizes income on work as a contract progresses. This method provides for recognition of income on a periodic basis rather than deferral of recognition until a contract is completed. This approach to income recognition has the advantage of recording income over the life of a contract as costs are incurred and effort is expended, thereby avoiding irregular fluctuations in results of operations sometimes associated with completed-contract accounting. The principal disadvantage of this method is that its use is dependent upon obtaining reliable estimates of total costs at completion and a sound assessment of the current stage of completion of the contract. A contractor's reported results can be misstated if such data is unreliable.

Completed-Contract Method. The completed-contract method defers recognition of income while a contract is in progress. Upon completion, or substantial completion, of a contract the total revenues and costs associated with the contract are recog-

⁴ Horace G. Barden, Accounting Research Study No. 13, *The Accounting Basis of Inventories* (New York: American Institute of Certified Public Accountants, 1973), p. 155.

nized. Current provision must be made, however, if a contract loss is indicated. The principal advantage of this method of recording income is that while the level of uncertainty regarding total contract cost estimates may not be reduced, the possible misstatement of the effect on periodic earnings is lessened. On the other hand, this method has the disadvantage of deferring recognition of income until completion of a contract. It does not reflect current performance when the period of a contract extends through more than one accounting period. In the case of an enterprise engaged in a small number of long-term contracts, completed-contract accounting may result in rather pronounced fluctuations in the levels of revenues, costs, and income. Such fluctuations may be less significant when short-term contracts are involved or when greater numbers of contracts are involved and a number of contracts are being completed or substantially completed in each financial reporting period.

Unit-of-Delivery Method. Under the unit-of-delivery method sales and cost of sales are recorded as units are delivered, thus paralleling income recognition practices generally associated with manufacturing enterprises not involved with government contracts. It offers the advantage of consistency in contract accounting methods when an enterprise is involved with commercial and government contracts that are similar in nature. It also permits periodic income recognition; however, under this method (as contrasted with the percentage-of-completion method) income would not be recognized before deliveries commence. To the extent a contract requires extensive lead time before deliveries commence, this method has the same disadvantage of income deferral associated with the completed-contract method.

Selection of Appropriate Accounting Method

There is a selection of acceptable contract accounting methods; thus, choosing the most appropriate method may be influenced by such factors as the type and duration of the contract, dependability or reliability of contract cost estimates, or the nature and complexity of the product or services to be provided.

Type of Contract. Cost contracts are described in chapter 1 as those which provide for reimbursement of allowable, or other-

wise defined, costs incurred plus a fee in most cases. This type of contract lends itself particularly to percentage-of-completion accounting as opposed to other acceptable methods. Fixed-price contracts in general provide for a stated contract value (which may be subject to adjustment) and do not by nature necessarily lend themselves to a particular accounting method.

Duration of Contract. The problems and questions associated with accounting for government contracts arise particularly in connection with long-term contracts since they extend over several accounting periods. Short-duration contracts present fewer problems and judgmental situations in the application of accounting method. From a theoretical standpoint the duration of a contract would not generally be expected to influence the selection of an appropriate accounting method. However, duration may be a factor leading to selection of a particular method. For example, in accounting for contracts of short duration, use of the completed-contract method may be considered to be a reasonable expedient over percentage-of-completion accounting even though the latter method might otherwise be considered appropriate.

Dependability or Reliability of Contract Cost Estimates. Estimating costs is inherent in government contracting, and this process normally starts before or at the time of preparation of a contract bid or proposal. Notwithstanding estimated expectations, the resulting cost estimates might be subject to varying degrees of dependability or reliability because of such factors as the estimating techniques employed or their degree of sophistication, the complexity of the contract, the scope of work (particularly on contracts that are advancing the state of the arts), or problems which may arise in the performance of a contract. In the selection of an appropriate accounting method to be followed in long-term construction contracts, Accounting Research Bulletin No. 45, paragraph 15, states:

In general when estimates of cost to complete and extent of progress toward completion of long-term contracts are reasonably dependable, the percentage-of-completion method is preferable. When lack of dependable estimates or inherent hazards cause forecasts to be doubtful, the completed-contract method is preferable.

This statement should importantly influence the choice of accounting method for long-term government contracts.

Nature of Product or Services. The nature of the product or services to be provided under a government contract may also influence the choice of an appropriate accounting method. For example, the unit-of-delivery method would seem inappropriate for a contract requiring the design and development of a single item as contrasted with a production contract for the manufacture of many items. On the other hand, a contract calling for the production of many items, particularly where a contractor has had previous experience, might be more appropriately accounted for by either the unit-of-delivery or percentage-of-completion methods rather than the completed-contract method. The completed-contract method would be appropriate for a long-term contract where reliable cost estimates could not be developed because of the nature of the contract or some other reason associated with contract performance.

When conditions permit, the selection should preferably be based on a concept of periodic recognition of income over the term of the contract. This conclusion is supported by the position expressed in Accounting Research Bulletin No. 45 quoted above. A company could use more than one acceptable method in different contract situations if well-defined criteria for differentiation exist. However, a company should not use different methods in substantially similar circumstances.

Application of Accounting Methods

Of the three basic accounting methods described earlier, the completed-contract method is the least complex to apply and is not affected in its application by the type of contract for which it is used. Under this method, revenue is not recorded until the contract is completed; costs of performance are then usually known, and there are no particular problems associated with the recording of sales and cost of sales. During the period of performance some difficulty may occur in estimating the total cost at completion for the purpose of establishing that the contract will not result in a loss since any such loss must be recognized as it becomes known regardless of the accounting method used.

The percentage-of-completion and unit-of-delivery methods are more complex and may present a number of problems in application. Practices in the application of these two methods are discussed in the remainder of this section. Some of the related accounting problems which may be encountered because of variations in each basic type of contract and because of incentive features often included in government contracts are also discussed.

In applying the percentage-of-completion method, the AICPA Committee on Accounting Procedure recommended in Accounting Research Bulletin No. 45 that the amount of income to be recognized as work progresses should be determined on the basis of (a) the percentage of estimated total income that incurred costs to date bear to estimated total costs after giving effect to estimates of costs to complete based upon most recent information, or (b) the percentage of estimated total income that may be indicated by such other measure of progress toward completion as may be appropriate having due regard to work performed. [Emphasis added.]

ARB No. 45 indicates a possible need to adjust "costs" if alternative (a) is used, and the following comments from the AICPA Industry Audit Guide for Construction Contractors (p. 15) are applicable to government contracts as well.

... since work performed is the primary basis for income allocation, certain costs may be disregarded as a measure of performance in the early stages of a contract for the purposes of determining income allocation. The bulletin qualifies the statement relative to "incurred costs to date" by saying as follows:

Costs as here used might exclude, especially during the early stages of a contract, all or a portion of the cost of such items as materials and subcontracts if it appears that such an exclusion would result in a more meaningful periodic allocation of income....

The above qualification takes into account situations in which substantial quantities of materials may have been accumulated on a job site but not used, or situations in which engineering or architectural fees have been incurred, which may, for example, represent 15 percent of total estimated costs when, in terms of work performance the contract was only 5 percent completed. In these circumstances income recognized as allocable to the period should be related fully to only 5 percent of the total, and not the extent of 15 percent.

Regarding alternative (b), the use of "such other measure of progress toward completion as may be appropriate," merely allows for situations when a more meaningful income allocation would result by using a basis other than costs for determination of "percentage-of-completion." The stage of completion of engineering contracts, for example, might be more appropriately measured by engineering estimates of progress rather than the relationship of costs incurred to total estimated costs.

Under the unit-of-delivery method of income recognition, unit sales values and costs are determined for use in recording sales and cost of sales. A number of practices in determining sales may be observed in applying this method. For example, sales may be recorded as deliveries are made at the unit sales value stated in the contract or sales may be recorded based on an average unit sales value determined by dividing the contract sales value by the number of units called for by the contract. Cost of sales for units delivered may be based on actual unit cost, if the contractor's cost system provides such information, or on average cost, which is usually determined by dividing total estimated cost at completion by the number of units to be produced. In the performance of production contracts it is not uncommon for the actual cost per unit to decline over the life of the contract. For this reason some contractors prefer the average-unit-cost approach. Other contractors prefer to use actual costs for purposes of determining cost of sales. If in the early stage of deliveries actual unit cost is higher than unit sales value, unit cost of sales sometimes is recorded at an amount not in excess of unit sales value. The excess of such actual costs over sales recorded is deferred and spread over units remaining after the break-even point is reached. However, an estimated loss on the overall contract should not be deferred.

The costs of various operating activities are often treated differently within a contract. For example, manufacturing or assembly costs may be charged based upon actual costs of identified units, whereas the cost of engineering, manufacturing, planning, and tooling, considered applicable to all units, may be allocated ratably over all units to be produced. The variations that may be encountered are too numerous to cover in this chapter. Mention is made here to alert the reader to the existence of such differ-

ences and to suggest the need for a full understanding of the contractor's cost accounting practices.

Price-redeterminable and economic price adjustment contracts provide for price adjustments based on cost or other considerations. The probable effects of such adjustments should be reflected in total revenue estimates as they are revised from time to time based upon current information and expectations.

Contract Cost Estimates

The task of estimating total costs to be incurred in the completion of a contract at any given date requires evaluation of all available data and is affected by many factors including, but not limited to, such matters as these:

- 1. Changes in cost of materials to be purchased in the future that are not covered by firm purchase orders.
- 2. Changes in cost of labor, including fringe benefits, which may be experienced in the future.
- 3. Changes in indirect costs such as manufacturing and engineering overhead and general and administrative expenses.
- 4. Advance agreements and cost-sharing arrangements with the government, including recoverability of company-sponsored research and development expenses.
- 5. Production efficiencies (i.e., the effect of the "learning curve").
- 6. Fluctuations in the total production activity and the resulting effect on allocation bases for the various indirect costs.
- 7. Specific contract provisions regarding such items as performance requirements, warranties, and damages.
- 8. Changes in costs of subcontracts.
- 9. Technical problems encountered in performance of the contract.
- 10. Contract changes.

Because of the complexities involved in estimating contract costs, the participation of financial, engineering, manufacturing, and other technical departments will normally be necessary to reasonably determine the remaining costs to be incurred in the performance of the contract.

Contract cost estimates should be reviewed and updated regularly over the term of performance of the contract. The frequency of such review and updating may depend upon contractual or other reporting requirements.

Assuming that percentage-of-completion accounting is used, a change in the estimate of total contract cost would for financial accounting purposes cause a change in the fee accrual rate for a cost contract or a change in the profit accrual rate for a fixed-price contract. In such circumstances, two general practices are used for recognizing the effect of such change.

One method recognizes the change to the full income effect in the accounting period in which the change is made. This is accomplished by adjusting the total amount of fee or profit recorded to date to bring that amount into agreement with the amount that would have been accrued had the newly determined fee or profit rate been applied in all earlier accounting periods. The proponents of this method believe that the amount of accrued fee or profit on a contract at any point in time should be in accord with the then current cost estimate for that contract. They point out that this method is consistent with the percentage-of-completion method based upon the relationship of incurred costs to date to estimated total costs after giving effect to estimates based upon most recent information.

The other method does not recognize the full income effect of the change currently but defers a portion of such effect to future periods. Under this method, the newly determined fee or profit rate is based upon the relationship of the amount of the fee or profit yet to be accrued to the estimate of the cost to complete the contract. Those who favor this method believe that the amount of fee or profit accrued in earlier periods (in absence of an error) was appropriately based upon reliable contract estimates at such times and that the effect of a change based upon current estimates should be recognized in future periods over the remaining life of the contract.

Either method can produce unusual results if radical changes in contract cost estimates (not occasioned by changes in the scope of work under the contract) occur from time to time, and accordingly, this matter should receive thoughtful consideration. In some instances, a revision in the estimate of cost to complete a contract may have resulted from a significant change (extension or redirection of the scope of work) in the contract. In these circumstances it may be appropriate to recognize the resultant profit adjustment only prospectively over the remaining life of the revised contract. Careful analysis of the circumstances and exercise of judgment will be required in such situations.

Provision for Anticipated Losses

At such time as the estimate of total cost for a contract indicates that a loss will be sustained, the loss should be recorded in full. Losses on contracts should not be allocated to future periods by spreading them over the remaining life of the contract. Neither should losses be deferred in expectation of future contracts or in anticipation that the government will exercise options for the delivery of additional units, components, or spare parts. In determining the need to provide for an anticipated loss, it is acceptable to treat several profitable and unprofitable contracts which are closely related, such as parts of the same project, as a single contract. (See Accounting Research Bulletin No. 45, paragraph 6.) Once such a provision for loss is made with respect to one or more contracts, it should not be later adjusted by reason of addition of a new profitable contract.

In situations where a contractor manufactures quantities for inventory in excess of contract requirements, the costs of production should be appropriately allocated to the contract and to inventory. The costs associated with this inventory must be evaluated for realizability under conventional inventory valuation practices.

Some government contractors may incur research and development costs in connection with products which may be sold both commercially and under government contract. In the past it was acceptable practice to defer and amortize research and development costs against income from a contract. However, the Financial Accounting Standards Board in its Statement of Financial Accounting Standards No. 2 concerning the accounting for such costs, states that all research and development costs not directly reimbursable by others shall be charged to expense when incurred. Consequently, a determination should be made concerning whether research and development costs attributable to govern-

ment products are allowable under terms of the contract in question. Such costs may not be allowable under the provisions of chapter 15 of the Armed Services Procurement Regulations unless the government contract or some other agreement specifically provides for them.

Contract Incentives

The incentive features of a contract may provide for upward or downward incentive adjustments to fee (cost contract) or target profit (fixed-price contract) based upon cost or other performance by the contractor in relation to established targets. In general, where performance (cost, schedule, or technical) betters the target, there is an upward incentive in the form of increased profit allowance; where performance does not meet the target, there is a downward incentive in the form of a reduction in the profit allowance.

When a basis for reasonable prediction of performance in relation to established targets exists, the effect of the upward or downward incentive adjustment should be recorded in a manner consistent with the accounting method in use for the contract. However, when a reasonable prediction of performance cannot be made, the revenue effect of the related upward incentive adjustment should not be recorded until such time as there is sufficient information to relate actual performance to targets or other criteria. In the event downward incentive adjustments would be required for failure to meet certain criteria and a reasonable prediction as to performance cannot be made, the total contract revenue, after being reduced for the effect of such potential downward adjustments, should be recorded on a basis consistent with the method of accounting for the contract.

Situations when performance may not reasonably be predictable might involve a single opportunity to accomplish a test or demonstration in accordance with established performance criteria or involve award fees which are determined solely by the U.S. Government and which may be subject to retroactive adjustment following evaluation of contractor performance.

Contract Costs Included in Inventory

Practice varies among government contractors as to the extent to which costs are included in inventory. Some contractors include all direct costs and only certain indirect costs (such as allocated manufacturing and engineering overhead expense) in inventory accounts. This practice is consistent with the belief of many accountants that certain expenditures do not fall within the definition contained in Accounting Research Bulletin No. 43, chapter 4, statement 3, which describes inventory costs "generally as the price paid or consideration given to acquire an asset." In the discussion of statement 3, the Bulletin states, "general and administrative expenses should be included as period charges, except for the portion of such expenses that may be clearly related to production and thus constitute a part of inventory costs (product charges)."

Other contractors record in inventory accounts all costs identified with the contract including allocated general and administrative, research and development, and bidding and proposal expenses. This practice perhaps derives its support from the concept of matching of revenues and costs. Accounting Research Bulletin No. 45, paragraph 10, states, "When the completed-contract method is used, it may be appropriate to allocate general and administrative expenses to contract costs rather than to periodic income. This may result in a better matching of costs and revenues than would result from treating such expenses as period costs, particularly in years when no contracts were completed." Many accountants believe this practice may be appropriately extended to government contracts accounted for by other methods. They point out that all costs under the contract are directly associated with the contract revenue, and both should be recognized in the same period.

Periodic income results should be approximately the same under either approach when the percentage-of-completion method is used. However, under completed-contract and unit-of-delivery methods, substantially different periodic income might result under each of the practices described above. A contractor's accounting practice with respect to costs included in inventory should be disclosed in the notes to financial statements.

Other Contracts and Arrangements and Related Accounting Considerations

Under some contracts the contractor may act in a capacity which makes it inappropriate to report reimbursable costs as sales

or revenues in the contractor's income statement. For instance, a contractor may operate a government-owned facility in an agency capacity for which the contractor will be reimbursed for costs of operations and receive a fee for performing the management service. In this situation the contractor should record only the fee in sales or revenues.

Contracts which call for the government to furnish materials or equipment may also present questions whether the costs of the items furnished should be included in the contractor's sales and cost of sales. Generally, the cost of such materials or equipment should not be included in the contractor's sales and cost of sales.

More difficult questions of accounting may arise when subcontract costs or the cost of special equipment to perform the contract, even though included in the contract price, represent such a substantial amount in relation to the contractor's other costs of performance that inclusion of such costs in sales and cost of sales might significantly distort the contractor's volume of activity. How such costs should be reported by the contractor must be decided based on the terms of the contractual arrangements and a determination as to the approach which will give the most useful financial information.

Financial Statement Reporting and Disclosure

The financial statement reporting and disclosure practices of companies engaged in government contracts do not basically differ from practices followed by other business enterprises. A discussion of reporting and disclosure practices is included in this chapter because certain practices may be unique to government contracting activity. Some of the described practices may be applicable only to government contractors. They are intended to apply when sales or revenues made under U.S. Government contracts and subcontracts constitute an important portion of the contractor's operations.

Pronouncements of the American Institute of Certified Public Accountants, the Financial Accounting Standards Board, and regulatory bodies having jurisdiction over reporting companies give guidance on financial statement disclosure requirements. The Securities and Exchange Commission, in their Accounting Series Release No. 138 of January 12, 1973 and No. 164 of November 21, 1974, give special guidance to publicly held companies in matters

of disclosure regarding long-term contracts and programs and extraordinary or material unusual charges and credits to income or material provisions for losses. It is anticipated that the SEC will continue to consider disclosures in this area.

Accounting Policies. Disclosure of significant accounting policies is required in the presentation of financial statements in conformity with generally accepted accounting principles (Accounting Principles Board Opinion No. 22). In adhering to this requirement, disclosures by government contractors generally include a description of the accounting practices employed with respect to government contracts including such matters as:

- 1. Basis for stating amounts related to contracts in progress (including practice with respect to accounting for indirect costs).
- 2. Basis for determining sales or revenues and related costs (including practice with respect to recognition of contract performance incentives).
- 3. Methods of accounting for adjustments resulting from changes in contract cost estimates and losses on contracts.

Balance Sheet Items and Disclosures. Balance sheet items directly associated with government defense contracts include receivables, inventories (accumulated contract costs), progress payments, and advance payments.

Receivables. Receivables from the U.S. Government under government contracts may represent billed or unbilled amounts. Unbilled amounts arise when sales or revenues, though appropriately recorded, cannot yet be billed under terms of the contract or when unit prices for items shipped have not been determined. U.S. Government receivables, where material, are usually shown separately from other receivables in the balance sheet (or otherwise appropriately disclosed). Unbilled amounts are often also stated separately when the amounts constitute a significant portion of the U.S. Government receivables. Examples of captions for such receivables are as follows:

Amounts receivable under U.S. Government contracts U.S. Government receivables (including unbilled items of \$___ net of progress payments of \$___)

```
Accounts receivable:
    United States Government
    Other, less allowance for doubtful accounts

Receivables:
    United States Government—
    Billed amounts of $___

    Unbilled amounts (less progress payments received)
    of $___

Commercial customers
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Accounts receivable from customers other than the U.S. Government often arise from prime contractor-subcontractor activity in connection with government contracts. These receivables require many of the same considerations concerning allowable costs, billable amounts, and other related matters as do receivables from the U.S. Government under prime contracts. However, receivables of a subcontractor from a higher tier contractor will also involve the usual credit and collection problems (which do not exist with respect to amounts receivable from the U.S. Government) associated with normal commercial receivables.

Inventories and Partial Payments. Inventories related to U.S. Government contracts generally represent costs accumulated under fixed-price contracts accounted for under the completed-contract and unit-of-delivery methods. Costs under cost contracts or fixed-price contracts accounted for under the percentage-of-completion method, even though accumulated in contract inventory type accounts, are generally classified as billed or unbilled receivables.

Most contractors bill contract amounts as promptly as practicable. Costs incurred under cost contracts are usually reimbursable and therefore are billed on an incurred basis. In many fixed-price contract situations the contractor receives some payment as work progresses. Such payments may be in the form of progress payments or payments made on the basis of partial delivery. Procurement regulations and contract provisions govern the form and timing of such payments.

The specific balance sheet description for accumulated costs under fixed-price contracts will depend on the method of accounting employed by the contractor. For example, under the completed-contract method and assuming the contractor has received partial payments for work performed under the contracts, a description such as "costs incurred under U.S. Government contracts in excess of payments received" might be used. Where the unit-of-delivery method is used the caption might be modified to read "costs incurred under U.S. Government contracts less amounts applied to units delivered and unapplied progress payments."

Progress payments received on fixed-price contracts are usually applied by individual contract to amounts carried in unbilled receivables and then to accumulated costs of contracts in progress (inventory), in that order. Amounts representing progress payments billed but not yet received by the contractor are not usually shown in the balance sheet because it would be incorrect to show uncollected progress payments as an offset to inventories. Advance payments (which differ from progress payments in that they are not related to progress of work on a contract) are reported in a manner similar to progress payments. However, advance payments received in excess of unbilled receivables and accumulated costs are classified as a liability, and if material, are described by such captions as "advance payments on U.S. Government contracts" or "amounts received in excess of costs incurred under U.S. Government contracts."

Where progress or advance payments have been received on contracts, the nature, amount, classification, and the existence of protective title to inventories under the contracts to which the payments relate are usually disclosed in the financial statements.

Income Statement Items and Disclosures. The form and content (including descriptive captions) of the income statement for an entity involved in government contracting are in all respects the same as for an entity involved solely in commercial transactions. Revenues, costs, and expenses are not usually segregated in the income statement between government and nongovernment business. However, there are certain matters related to operations of an enterprise involved in long-term government contracts which may require disclosure in notes to the financial statements.

The proportion of the contractor's revenues arising from U.S. Government contracts and subcontracts is customarily disclosed in a note to the financial statements (if not otherwise ap-

propriately disclosed in the income statement). Frequently this disclosure will include quantitative information, by broad category, as to the type of contracts (such as cost or fixed-price) under which such revenues are generated.

The government contractor can be faced with significant problems in the performance of long-term contracts and in the estimating of contract costs and profits (or losses). Such problems are often more severe for the contractor performing contracts which call for complex systems or involve significant technological advances. It is not possible to describe the many situations which may be encountered or to indicate the specific financial statement disclosures that might be appropriate in each instance. In broad terms, the obligation exists to make adequate disclosure, either in the body of the financial statements or in related notes, of information that might affect the conclusions formed by a reasonably informed reader. The following examples illustrate situations or types of information respecting the income statement which may affect comparability or future operations and therefore may indicate a need for amplification in notes to the financial statements.

- Contract price adjustments that are abnormal in amount or unusual in that they do not occur regularly
- Provision for loss that is a substantial amount
- · Recognition of incentive income that is a substantial amount
- Significant problems encountered in the performance of contracts that may materially affect future operations

Other Reporting Matters

Additional disclosures of significant information may be appropriate with respect to government contract activities and should be considered in light of the circumstances and conditions which may arise from time to time. Reporting considerations with respect to contract terminations and renegotiation are discussed elsewhere in this audit guide.

Defective Pricing. Public Law 87-653, known as the "Truth in Negotiations Act," permits the government to make contract price reductions if a contractor fails to submit accurate, current, and

complete cost or pricing data prior to award of certain negotiated contracts or contract amendments. When defective pricing exists, contract prices (including profit or fee) may be adjusted and disclosure may be required if the amounts involved are material. Instances may occur where defective pricing may be alleged by the government but disputed by the contractor. In these cases careful analysis of the circumstances and judgment may be required. If the potential amounts involved are material, disclosure in notes to financial statements would usually be made.

Unusual Contracts. A government contractor may on occasion enter into a contract or subcontract which may be so unusual either as to type, amount, or other condition, in comparison with other contracts with which the contractor is concerned, that disclosure would be warranted. For example, a contractor may customarily engage in firm fixed-price contracts which are relatively consistent in amount. Should the contractor undertake a fixed-price incentive contract which is substantially greater in amount and subject to substantial added risks, additional disclosure of the new contract may be warranted. The terms of a contract might also be sufficiently unique to warrant specific disclosure. Again, by way of example, if a contractor could earn a substantial award fee, or be subject to a substantial penalty to be determined at the conclusion of the contract, this information, including estimated amounts, should be provided in notes to the financial statements.

Cost Limitations. Cost contracts provide for payments to a contractor for all allowable costs (plus fee, if applicable). In most instances, the government will fully fund the estimated contract price, and the contract will contain a clause entitled "Limitation of Cost." In some instances total funding may not be available at the outset of the contract and the total estimated contract price will only be incrementally funded by the government; in this instance, the contract will contain a clause entitled "Limitation of Funds." In either event, it is the duty of the contractor to notify the contracting officer, in writing, any time the contractor has reason to believe the costs expected to be incurred within the next 60-day period, when added to all previously incurred costs, will exceed 75 percent of the estimated contract cost, or if the contractor has reason to believe the total cost (exclusive of

fee) will be greater or substantially less than the estimated cost. The contractor's revised estimate of that total cost should accompany this written notification. Unless the contracting officer takes action on the notification and provides additional funding, where necessary, the government will not be obligated to reimburse the contractor for costs incurred in excess of the amount funded, nor is the contractor obligated to continue performance once he has incurred costs up to the level of funding. A contractor who incurs costs in excess of the amount funded by the government does so at his own risk, and if the amount of such excess spending is material, the matter may require disclosure in notes to the financial statements.

Contract Disputes and Other Claims. Contract disputes and other claims, either against the contractor or the government, often arise in connection with government contracts and subcontracts. Most often such situations are considered as a normal consequence of business and are not of sufficient importance to warrant reporting except when amounts involved become significant to the overall financial statements. Disclosure such as that customarily accorded significant contingent matters is warranted if any such situation could materially affect financial position or future results of operations.

Chapter 3

Contract Terminations

Introduction

Government contracts contain clauses which provide for termination of the contract by the government. Termination clauses are necessary to give the government the means to terminate a contract when conditions arise in which termination would be in the government's best interest (called termination for convenience) or to minimize the loss to the government because of non-performance by the contractor (called termination for default). Generally the same termination clauses contained in the prime contract apply to the subcontracts (purchase orders).

This chapter is intended to generally describe termination settlement procedures and practices, accounting for contract terminations, and recommended financial statement disclosures arising from terminations.

The financial impact of contract terminations differs depending upon whether the termination is for the *convenience* of the government or because of a *default* by the contractor. It is therefore necessary that the independent auditor understand these two basic types of terminations.

Termination for Convenience of the Government

Contracts are terminated for convenience generally for the following reasons: (1) to avoid technological obsolescence (and to take advantage of technological advancements in weapons, equipment, or services); (2) because of subsequently imposed budgetary restrictions which preclude or substantially limit the

availability of contract funds and thereby limit performance; (3) because of diminishing demand for the contracted product or service (arising, for example, from the end of a war or from de-escalation of war effort); or (4) because of an inability to produce a product in accordance with desired specifications.

As has been noted elsewhere in this audit guide, various regulations have been issued by the government dealing with the procurement of supplies and services. These governmental regulations, together with the contract provisions, the law, and related court decisions, set forth detailed rules to accomplish the objectives of convenience terminations. When the government terminates contracts for convenience, it must compensate the contractor for work performed (including a reasonable allowance for profit) and settlement expenses. Anticipated profits on work not to be performed due to the termination are not reimbursed.

The contractor obtains payment for amounts due in connection with convenience terminations by presenting a "settlement proposal" or claim to the government for allowable contract costs, proportional profit (or loss) and settlement expenses, less payments already received. In the instance of a terminated cost reimbursement contract, a termination claim may be either prepared in voucher form via normal billing procedure or by means of a formal settlement proposal. In the instance of a terminated fixed-price contract, a formal settlement proposal is always used; there are two basic methods under which this settlement proposal can be prepared—the *inventory* method and the *total-cost* method.

Under the inventory method (usually preferred by the government), the cost of inventory on hand (excluding finished goods approved for shipping and billing) at the date of termination is determined; general and administrative expenses, an applicable profit (or loss) factor, subcontractors' claims, and allowable settlement expenses² are then added to the claim.

² Refer to ASPR Section 15-205.42 for specific instructions on allowable settlement expenses.

¹ Of particular significance in connection with government contract terminations are the following sections of the Armed Services Procurement Regulations (ASPR): Section VII—Contract Clauses, Section VIII—Termination of Contracts, Section XV—Contract Cost Principles (Allowable and Unallowable Costs), Section XXIV—Disposition of Property, and Appendix F—Forms.

Under the total-cost method (use of which must be approved by the termination contract officer), all costs incurred are claimed by type rather than by identification with a list of parts, products, and other items. General and administrative expenses, an applicable profit (or loss) factor, subcontractor's claims, and allowable settlement expenses³ are then added to the claim. The total-cost method may be appropriate where accumulated costs represent planning and preproduction expenses or where the contractor's accounting system or the inventory on hand does not readily lend itself to unit costing.⁴

Methods of cost allocation that produce results in accordance with generally accepted accounting principles and practices, government agency procurement regulations, and Cost Accounting Standards Board standards, rules, and regulations are acceptable for termination cost determination as long as the allocation results are fair, reasonable, and equitable in the circumstances. Allocations of special items of costs, such as start-up costs expensed prior to the termination date, are appropriate provided they are supported by fact and reason. No production costs incurred after the termination date will be allowed unless specifically authorized by the termination contracting officer. However, certain costs continuing after the date of termination, such as the cost of idle facilities, unexpired leases, ongoing unabsorbed fixed overhead, and settlement expenses may be claimed.

If the contractor would have suffered a loss had the entire contract been completed, no profit may be claimed. Moreover, the contractor must accept a proportionate part of the loss by reducing his claim.

Accounting for convenience terminations must reflect the rights established in the contracts and in the procedural rules for such terminations, that is, the right of the seller to payment for work completed plus reimbursement for settlement expenses. Such rights result in claims under the contract which require recognition for accounting purposes in a manner which is substan-

³ Ibid.

⁴ Detailed explanations of the procedures followed in preparation of a settlement proposal may be found in several termination manuals, such as *Defense Contract Termination Guide*, Electronic Industries Association, 1969.

tially equivalent to percentage-of-completion accounting (refer to p. 12 in this audit guide).

The effects of a significant contract termination should be disclosed and accounted for by the contractor as soon as possible after it occurs. Contractors should record the amounts anticipated to be recovered from their termination claims in income as soon as those amounts can be reasonably determined rather than at the time of final settlement. All costs applicable to a termination claim should be charged as an offsetting expense concurrently with the recognition of income from the claim. It is important to recognize that claimed amounts should be computed and recorded as income, using as a basis those costs which are defined as allowable under procurement regulations. On the other hand, when recording expenses related to the termination, all contract costs should be recognized whether or not such costs are allowable under applicable regulations.

Subcontractor and other vendor claims should be recorded as liabilities at the estimated amounts payable. To the extent such amounts are recoverable by the prime contractor, they should be included as part of his claim.

Termination for Default

A default termination may result from alleged or actual failure of the contractor to perform in accordance with the contractual terms by (1) not delivering the supplies or performing the services within the time specified in the contract; (2) not making sufficient progress, thereby endangering the ultimate contract performance; or (3) not performing other provisions of the contract.

Under fixed-price contracts terminated for default, the contractor is not entitled to reimbursement for costs incurred on undelivered work, and the government is entitled to repayment of advances and progress payments previously paid for such work. Furthermore, the contractor is liable to the government for any "excess reprocurement costs" or increased costs incurred in procuring equivalent supplies and services in lieu of those to be furnished under the terminated contract. Considerable time may elapse before a claim for these excess reprocurement costs is asserted against the contractor.

In the case of a cost-type contract terminated for default, a reduction is made in the fee to eliminate profit on work not accepted by the government. The contractor is not entitled to reimbursement for costs of preparing the settlement proposal. However, all other allowable costs are recoverable.

Since the rights of the contracting parties in a default termination differ significantly from those in a convenience termination, the accounting must reflect these differences. Accordingly, contractors should record, in addition to normal contract liabilities, those liabilities arising from a default termination, for example, damages, excess reprocurement costs, and progress payments to be repaid. Termination for default may result in a reduction of previously recorded income. In such cases, adjustments of prior period amounts would not be appropriate, but the resulting income effect should be included in the loss on termination of the contract in the current period. If material in amount, such loss should be reported as a separate item in the income statement or otherwise disclosed in notes to financial statements. (See Accounting Principles Board Opinion No. 30.)

Contractors generally try to convert a default termination to one for convenience through discussions with the contracting officer. If unsuccessful, advice and assistance of legal counsel is particularly important because of the possibility of legal recourse to the Armed Services Board of Contract Appeals or the Court of Claims.

Where the outcome of a contractor's attempt to convert a termination for default to a termination for convenience can be reasonably predicted, the accounting should be appropriate for the type of termination predicted. However, in many cases, it may not be possible to predict the outcome with reasonable assurance, and it would not be proper in such cases to adjust the financial records except to provide for a known contract loss which would be incurred even if the termination were to be converted to one for convenience. In any event, appropriate disclosure should be made in the notes to the financial statements.

Financial Statement Presentation

Generally, the effect of a contract termination should be reflected in the financial statements of the contractor in the period in which the termination occurs. If, however, sufficient information is not available to predict the effect of a very recent termination, then the best information available should be disclosed in a note to financial statements.

Full disclosure should be made in the notes to the financial statements of significant items of a known controversial nature even if estimates of ultimate amounts to be realized cannot be determined. The government contracting business is subject to a different degree of risk than its commercial counterpart because of the unilateral contract right of the government to terminate a contract. Where there are indications (1) that a contract termination may occur, such as notice of a possible termination, contract performance problems, procurement cut-backs, and so forth, and (2) that the termination would have a material effect on the contractor's operations, disclosure of the circumstances and the potential effect should be made in the notes to the financial statements.

Significant uncertainties may exist as to the recoverability of costs in a termination claim, particularly in cases of termination for default. Such terminations may create additional uncertainties regarding possible liabilities for damages or excess reprocurement costs.

Chapter 4

Renegotiation

Introduction

Certain accounting and reporting problems may arise because of the provisions of the Renegotiation Act of 1951, as amended. Renegotiation is a complex area in government contracting and this chapter highlights certain important aspects of renegotiation. If a more comprehensive knowledge is required, reference should be made to the Renegotiation Board Regulations and, for interpretations and explanations thereof, to the Board's Renegotiation Rulings and Bulletins. Those materials are available, on a subscription basis, from the Superintendent of Documents, Washington, D.C. 20402, and from various business reporting services.

Scope and Purpose of Renegotiation

Renegotiation has existed under various formats since World War II and is currently administered under the Renegotiation Act of 1951, as amended, which, although intended to be temporary legislation at time of enactment, has been extended numerous times. The act applies to contracts and related subcontracts with the following departments and agencies named in the act:

Department of Defense
Department of the Army
Department of the Navy
Department of the Air Force
National Aeronautics and
Space Administration

Atomic Energy Commission General Services Administration Federal Aviation Agency Maritime Administration Federal Maritime Board The Renegotiation Act is administered by the Renegotiation Board and its two regional boards. Each board has a supporting staff.

It is the Renegotiation Board's function to evaluate the aggregate annual profits earned from contracts with the named departments and agencies and related subcontracts in accordance with criteria set forth in the act (commonly referred to as the statutory factors) and, to the extent that some portion of the profits are considered to be excessive, to eliminate such excessive profits through agreement with the contractor or by issuance of a unilateral order.

Each company having annual sales of \$1 million or more, or brokers or agents having annual commissions of \$25,000 or more, from contracts and subcontracts covered by the act, is subject to the renegotiation process. In determining these amounts, renegotiable sales must be aggregated, less intercompany sales, for all companies under common control. Further, if the fiscal year of the company is less than twelve months, the \$1 million and \$25,000 minimum amounts must be prorated accordingly. In determining whether or not subject renegotiable sales must be reported to the Board on the Standard Form of Contractor's Report (RB Form 1), it should be noted that the Renegotiation Act provides for certain mandatory exemptions from renegotiation and authorizes the Renegotiation Board, in its discretion, to provide permissive exemptions. Each of the exemptions is narrowly applied and the Renegotiation Board Regulations should be reviewed to determine the applicable criteria which must be met to qualify for the exemption.

If renegotiable sales are less than the minimum amount, the company is not required to file a report but may elect to file a Statement of Nonapplicability (RB Form 90), which may be desirable, since it will serve to start the running of the one-year statute of limitations. The appropriate form is due on or before the first day of the fifth calendar month following the close of the fiscal year; however, extensions of the due date may be obtained with the approval of the Renegotiation Board.

Renegotiation is conducted on a fiscal year basis (corresponding to the company's federal income tax fiscal year) and is applied to the aggregate renegotiable sales within that fiscal year, and not to sales by individual contracts or subcontracts. The

method of accounting for renegotiable sales, and determining costs and expenses applicable to them, is generally that used in the conduct of the company's normal business adjusted to conform to reported federal taxable income.

It is the company's responsibility to determine if its sales are subject to the Renegotiation Act. The board has set forth in its regulations criteria to be followed as a guide in this determination. Renegotiable sales can be identified by reference to government contract numbers, presence of the renegotiation clause, defense priority ratings, the company's own knowledge of the end use of the product, or direct inquiry from the customer. The existence of a renegotiation clause in a purchase order is not controlling, although it is evidence that the order may be subject to renegotiation.

Costs and expenses are attributable to renegotiable business in accordance with the company's normal accounting policies and the allowability of such costs is governed by the Renegotiation Board Regulations. Allowable costs, as enumerated for contracting cost purposes in such regulations as the Armed Services Procurement Regulations, have no direct bearing on renegotiation. Normally, those costs allowable for federal tax reporting are considered allowable for renegotiation. There are circumstances under which the board will permit reporting on a basis different from that used for federal income tax purposes, but only when the tax basis is considered manifestly unsuitable for renegotiation purposes. In such instances, the board will enter into a special accounting agreement with the company.

Renegotiation filings assigned to the regional board for review are classified as either Class A or Class B cases, depending upon whether the renegotiable profits reported are over or under \$800,000. The regional boards have the authority to enter into a final settlement with the contractor in a Class B case; whereas in a Class A case, they make a recommendation to the Renegotiation Board and agreement can be reached only with that board.

Generally, refunds of excessive profits will not be required if the amount of excessive profits (before adjustment for state taxes measured by income) is less than \$80,000 (\$20,000 for brokers or agents).

Should the overall result of the year's renegotiable business show a loss, such loss may be carried over as a cost against future renegotiable business for up to five years. There is no provision for carrying losses back to prior years.

The statutory factors upon which the evaluation of the company's performance is based are the following:

- Efficiency of the contractor or subcontractor, with particular regard to attainment of quantity and quality production, reduction of costs, and economy in the use of materials, facilities, and manpower.
- Reasonableness of costs and profits with particular regard to volume of production, normal earnings, and comparison of war and peacetime products.
- The returns on net worth and capital employed with particular regard to the amount and source of public and private capital employed.
- Extent of risk assumed, including the risk incident to reasonable pricing policies.
- Nature and extent of contribution to the defense effort, including inventive and developmental contribution and cooperation with the government and other contractors in supplying technical assistance.
- Character of business, including source and nature of materials, complexity of manufacturing technique, character and extent of subcontracting, and rate of turnover.

Renegotiation Process

The renegotiation process for companies with renegotiable sales less than the statutory minimum is generally completed with the filing of the Statement of Nonapplicability (RB Form 90). Renegotiation proceedings for companies with renegotiable sales in excess of the statutory minimum must be commenced within one year from the date the Standard Form of Contractor's Report (RB Form 1) is submitted, and such proceedings must be completed within two years from the date of commencement of review by the board. The Renegotiation Board, however, is authorized to enter into agreements with the company to extend the period of time for completion of the renegotiation process and it is not uncommon for it to do so.

The major steps in the renegotiation process are as follows:

- RB Form 1 reporting the operating results of the company segregated by renegotiable and nonrenegotiable business is submitted. The Renegotiation Board reviews the data and either issues a Notice of Clearance Without Assignment or assigns the case to one of the regional boards for further processing.
- A regional board reviews the case. That board conducts an
 accounting review of the data submitted and may request additional data. The regional board evaluates the company's
 performance in accordance with statutory factors and may
 visit the company's facilities to observe the operations.
- Conclusion resulting from the review. If it is concluded that no excessive profits were realized, the company will be notified to that effect and receive a Final Opinion stating the basis of the findings. If, however, it is concluded that excessive profits were realized, an Accounting Report and a Renegotiation Report will be prepared and furnished to the company. Thereafter, the assigned regional board personnel will hold a renegotiation conference with the company (at its option) at which time any information regarding matters considered pertinent to the case, whether or not previously submitted, may be discussed, and the possibility of reaching an agreement for the elimination of excessive profits will be explored.
- At the option of the company, an official meeting with the panel of the regional board members will be held at which time the company can orally present data it feels is pertinent to the case and the possibility of reaching an agreement will be explored. If a determination of excessive profit (which can be higher, lower, or the same as the tentative conclusion) is made, it is communicated to the company together with a Proposed Opinion stating the basis for its findings.
- If the company does not agree with the regional board's determination, a request must be made for reassignment of the case to the Renegotiation Board and a hearing before its members at which time it may present any data it feels pertain to the case.
- A final determination will be made by that board (higher,

lower, or the same amount as that of the regional board). At that time a Proposed Opinion will be received from the Renegotiation Board.

- The company agrees with the Renegotiation Board's determination, or with its issuance of a Final Order to the company, to pay the amount so designated.
- If the company does not agree and wishes to contest the board's determination, a petition is submitted to the U.S. Court of Claims, within 90 days of the issuance of the order.
- A hearing is held before the U.S. Court of Claims and a final determination reached by that court whose determination can be higher, lower, or the same as that determined by the Renegotiation Board.

Accounting and Reporting Considerations

When renegotiable sales exceed the statutory minimum it is necessary to review profits of these operations for the existence of potential renegotiation liability. Generally accepted accounting principles (Accounting Research Bulletin No. 43, chapter 11, section B) require that provision be made in the financial statements for all liabilities, including reasonable estimates for liabilities not accurately determinable. A company's prior renegotiation experience, or that of comparable companies, if available, may provide a basis for making such an estimate.

The provision for renegotiation liability should be related to, and calculated on the basis of, renegotiable income recognized during the period. Renegotiation involves an adjustment of the original selling price and, therefore, the provision before income tax effect should preferably be treated in the income statement as a reduction of the sales amount. The amount accrued should be included in current liabilities in the balance sheet.

The situation may arise where a final renegotiation determination applicable to a prior year is materially different from the provision in the financial statements originally issued for such year. In such cases, the difference should be reported as a prior period adjustment in accordance with Accounting Principles Board Opinion No. 9.

Whether or not a provision in the accounts is made, disclosure in a note to financial statement, or otherwise, may be required because of the significance of renegotiation to the company's business, or uncertainty of the outcome of renegotiation proceedings. Several illustrations of notes follow:

1.	A substantial portion of the Company's sales for the year is subject to the Renegotiation Act of 1951, as amended. Renegotiation proceedings have been concluded for all preceding years through with the exception of In the opinion of the Company's management,
	(a) no excessive profits have been realized in this year and accordingly no provision for renegotiation refunds has been made.
	or (b) renegotiation refunds, if any, for this year will have no material effect on the accompanying financial statements.
	or
	(c) adequate provision for renegotiation has been made in the accompanying financial statements.
2.	A substantial portion of the Company's sales in the current and prior years is subject to the Renegotiation Act of 1951, as amended. Renegotiation proceedings for the year(s) to are in process; however, the amount of excessive profits, if any, cannot be reasonably estimated at this time since the Company has had no prior experience on which to base an estimate. Accordingly, no provision has been made in the accompanying financial statements.
3.	The Renegotiation Board has determined that for the year the Company made excessive profits on renegotiable business, net of applicable taxes, of approximately \$ The Company does not agree with this determination and has petitioned the Court of Claims for a redetermination of the board's findings. Since the Company believes that no excessive profits were realized, no provision for refund has been made in the accompanying financial statements. Renegotiation proceedings for the year(s) through (are in process) (have not commenced); however, management is of the opinion that the effect of any determination of excessive profits on the financial statements would be improtorial

Chapter 5

Government Contracting Audit Considerations

Introduction

Generally accepted auditing standards are applicable in the examination of financial statements of companies which are government contractors. This chapter deals primarily with auditing procedures peculiar to government contracts.

The examination of a government contractor's financial statements may require the application of auditing procedures different from those employed in the examination of financial statements of a typical commercial enterprise. These procedures may be necessary because (1) contract provisions and regulations have a significant impact on the rights of the contracting parties and (2) substantial estimating (preliminary stages of completion and cost to complete) is generally required as a result of the long duration of many contracts. The procedures selected by the independent auditor reflect these characteristics of the government contracting environment.

An auditor's selection of procedures to follow in the audit of a government contract is influenced by a wide variety of considerations. The relative significance of a particular government contract, or of all government contracts, when viewed as part of the client's entire operation, will influence the auditor's decision as to whether, or to what extent, he will use a particular procedure discussed in this chapter. An independent auditor may conclude that a matter for which a procedure discussed in this chapter has been designed is not significant, even though it relates to

a contract that is relatively significant. Also, an independent auditor may conclude that he can accomplish the objective of a procedure discussed in this chapter by using another such procedure or by using a procedure not discussed here. Such considerations must be borne in mind in reading this chapter. Particular expressions such as "the auditor should" or "the auditor will," that are used for simplicity in discussing auditing procedures, ought in all instances to be read as if they were preceded by a limiting expression such as, ". . . if the auditor concludes that it is appropriate and necessary to do so. . . ."

Contract Provisions and Regulations

Companies engaged in government contracting are subject to special provisions and conditions contained in the contractual agreement, applicable procurement regulations and other regulatory requirements. Some contractual provisions and regulations associated with government contracting permit the government to do the following:

- 1. Not include in contract costs and expenses those expenditures which are not considered to be allowable, allocable, or reasonable. Some costs are specifically disallowed under procurement regulations. The government may also enter into agreements covering the extent to which certain costs and expenses will be allowable for contract purposes. Such allowable costs may affect the anticipated contract sales value and the resultant recovery of actual contract costs incurred to date.
- 2. Direct changes at any time in a contract, subject to an equitable adjustment of the contract price and delivery schedule. (See "Change Orders" in this chapter.)
- 3. Adjust contract price in accordance with specific contract clauses. (For example, see "Defective Pricing," chapter 2.)
- 4. Terminate contracts at the convenience of the government.
- 5. Furnish material or equipment. Although such materials or equipment would not normally be recorded on the company's records, they become the custodial responsibility of the contractor and must be accounted for upon completion of the contract.

6. Have access to and review the contractor's accounting and other records. The Defense Contract Audit Agency (DCAA) and the General Accounting Office (GAO) generally perform such reviews. The DCAA is primarily responsible for advising procurement personnel on the acceptability of contractor's estimated or incurred costs as allowable contract costs. The DCAA is also responsible for ascertaining compliance by contractors with legislation relating to defense contracts. The GAO conducts studies and investigations of procurements to determine that such procurement actions were made in conformity with the applicable laws and regulations. In certain instances both the DCAA and the GAO, within three years after final contract payment, may review those books and records of a contractor involving transactions related to a contract. The independent auditor should inquire about the status of audits performed by government agencies.

In addition to the matters discussed above, the Cost Accounting Standards Board promulgates cost accounting standards which must be adhered to by affected contractors. The board's regulations also provide that contractors meeting certain requirements must file a disclosure statement of their cost accounting practices. The practices so disclosed must then be followed by the contractor in his cost estimating, recording, and reporting.

The independent auditor should be cognizant of the differences between accounting principles for financial reporting and those required for contract pricing. He should determine the effect of such differences on the financial statements he is examining. Various procurement rules and regulations may require that costs be allocated and classified in a specific manner (such as direct or indirect, and allowed or unallowable costs) for determining contract pricing, whereas such requirements are not relevant when accounting for these costs for financial reporting purposes.

The independent auditor should ascertain the status and amount of contract funding (appropriations of funds by the government for the particular contract) since costs incurred in excess of funding could result in realization problems to the contractor. The amount of funding is disclosed in the contractual document.

The independent auditor should review the contractor's major prime contracts, subcontracts, and related change orders for special provisions and terms. Pertinent details observed in this review may be extracted from the contract and the related contract files and maintained in the independent auditor's working papers or permanent file for reference during the current and subsequent examinations, if appropriate.

Internal Control

The independent auditor's review and evaluation of internal control of a government contractor is performed in order to establish a basis for reliance thereon in determining the nature, extent, and timing of audit tests to be applied in his examination of the financial statements. Some important elements of internal control which should be present in a government contractor's procedures, as well as certain weaknesses sometimes noted, are discussed in the following paragraphs.

Ordinarily, a contractor's personnel responsible for the accounting for, and the administration and performance of government contracts should be informed of contracts and subcontracts in process, change orders thereto, and termination notices. The system of internal control may include procedures for providing cost information in support of requests for progress payments, for the release of cost information to affected personnel, and for measurement of cost and physical performance of contracts.

The accounting system should ordinarily provide for classification of costs and expenses by direct and indirect charges, accumulation of overhead costs into specific pools, and identification of costs clearly defined as unallowable in applicable procurement regulations. Procedures should result in consistent application of allocation procedures and practices.

In addition to the accounting system and controls, particularly as they relate to costs of contract performance, the independent auditor might consider the contractor's procedures for estimating, bidding, and budgeting controls established by the contractor over expenditures, program performance, and so forth. Where the contractor has an internal audit department, the independent auditor may read the internal audit program and related reports

for indications of weaknesses. The auditor may also wish to review the contractor's adherence to pronouncements of the Cost Accounting Standards Board, including, where applicable, a review of the contractor's disclosure statement.

The independent auditor will usually find it desirable to accumulate pertinent details of the internal control system and maintain them in a permanent file for reference.

Weaknesses and deficiencies in accounting procedures and internal control which may be encountered in a contractor's operations include the following:

- 1. Failure to develop realistic budgets and budgetary controls and to periodically evaluate contract performance and profitability on a realistic basis.
- 2. Inadequate control over estimating and bidding on contracts.
- 3. Failure to comply with requirements with respect to submission of current cost and pricing data.
- 4. Inadequate control over cost accounting records and cost control procedures.
- 5. Weaknesses in billing procedures.
- Lack of effective communication among personnel involved in operations, estimating, bidding, administering, and accounting for contracts.
- 7. Inadequate procedures for the control of contract changes and modifications.
- 8. Noncompliance with Cost Accounting Standards Board's standards, rules and regulations, and disclosure practices, where applicable.

Significant weaknesses and deficiencies in internal control may cause the independent auditor to conclude that he cannot place sufficient reliance upon the contractor's accounting system to justify continuing further his preliminary review (including tests of compliance). In these cases, the auditor may decide to expand his substantive tests of government contract accounting including the review of contracts and other data supporting the determination of current contract status.

Accounts Receivable

A contractor's receivables may include billed and unbilled amounts, retention, and claims. The contractor's records ordinarily include separate accounts for these types of receivable (and related reserves) because of the differing circumstances under which they arise.

Billed receivables under government contracts differ from commercial trade receivables in certain aspects. Amounts due from the U.S. Government under a prime contract relationship may ordinarily be considered collectible from the standpoint of the customer's ability to pay. Nevertheless, the independent auditor will ordinarily undertake procedures to determine that the amount included in the contractor's records represents the amount billed to the procurement office on the contract(s) stated. The independent auditor may attempt direct confirmation of the amount; however, the likelihood of receiving a reply is not as great as for commercial trade receivables because government disbursement offices seldom reply to these requests. Consequently, the independent auditor will often employ alternative audit procedures.

Alternative procedures may include direct confirmation with the contract disbursement officer of the individual amounts billed, and possibly confirmation of subsequent payments received by the contractor. It may also be appropriate to compare selected receivables with subsequent recorded cash collections, approved billing documentation, shipping records, delivery schedules, government inspection and acceptance documents, and so forth.

In a commercial enterprise these procedures would ordinarily serve to satisfy the independent auditor that the billed amounts were fairly stated because he would expect that confirmation or payment would not be forthcoming if the receivables were incorrect. This is not always true with the government, however, since confirmation or payment does not necessarily mean that the amount is correct but only that the amount has been billed. Thus, the independent auditor's evaluation of the propriety of the outstanding amounts may include a review of individual contract provisions and a comparison of total amounts billed with the amounts which are billable in accordance with contract terms.

Inquiries of contractor management personnel and other evalu-

ations as to the possibility of subsequent adjustments may also be made. Such adjustments could result from overbilling of the contract amount, disallowances, billings without proper authorization, or billings not in accordance with contract terms.

Billed receivables due from other contractors (where the company being audited is a subcontractor) can generally be confirmed by direct correspondence. In the absence of direct confirmation, alternative procedures should be applied similar to those employed for prime contracts. However, the government's credit standing does not pass to the prime contractor or higher-tier subcontractor and, therefore, they must be evaluated with respect to their own credit status.

Unbilled receivables arise when sales or revenues have been recorded but the amounts (or portions thereof) cannot yet be billed under the contract terms. Specifically, such balances may represent (1) unbilled amounts arising from the use of the percentage-of-completion method of reporting income; (2) incurred cost to be billed under cost reimbursement type contracts; (3) estimated billing prices to be made final at a later date for items shipped and accepted; and (4) differences between provisional overhead billing rates and actual allowable overhead rates. Since direct confirmation is generally not possible, the alternative audit procedures applied would ordinarily be similar to those applied for billed receivables. The auditor will be concerned with possible overbillings, unauthorized shipments of goods, and so forth. In addition, he will consider whether the amounts may be or have been converted to billed receivables at a later date and whether management has given adequate consideration to possible unallowable costs.

The auditor may decide to investigate receivables (billed and unbilled) not collected subsequent to the examination date since noncollection may indicate existence of disputed costs, potential or unrecorded contract modifications, credit difficulties, legal problems, and other matters which may have a bearing on ultimate collectibility.

Retained Amounts

Retained amounts may be provided for by contract arrangements which permit the customer to hold back a defined amount

or percentage of a contract price until certain contract conditions are satisfactorily met. These conditions may relate to such things as uncompleted overhead rate negotiations, disposal of government-owned materials, fulfillment of contract guarantees or warranties, or the total completion of contract performance. In some instances, the duration can be lengthy. The independent auditor should ascertain that the conditions giving rise to the retained amount are progressing in a manner which will result in its ultimate realization.

Claims Receivable

Claims receivable, other than those arising from contract terminations, usually arise from unilateral contract changes by the government (see Change Orders in this chapter) or disputes. An evaluation of the likelihood of settlement under terms which will result in collection of the recorded amount can sometimes be accomplished by review of the contract terms and documentation of the claim and by discussion of the basis for the claim with knowledgeable contractor personnel and legal counsel.

Often claims are settled only after prosecuting through the Armed Services Board of Contract Appeals or the Court of Claims. Many of these claims are not recognized in the contractor's accounting records until settled. Disclosure of the existence of any material claims should be made in the financial statements (including the notes thereto). If collectibility of material claims is uncertain, the independent auditor may decide to modify his opinion.

Liabilities

Liabilities of the government contractor will not differ substantially from those of a commercial firm, but may often include payables to subcontractors (including retained amounts), advance payments received from the government, and guaranteed loans.

Amounts due subcontractors, like other accounts payable, should be supported by invoices and other appropriate documents. In some instances, contractors retain a portion of amounts due subcontractors until the subcontractor's work is completed

and accepted. The retained amount may be a percentage of the subcontract price or a fixed amount, as provided in the subcontract. The independent auditor might also confirm such amounts with the subcontractor to satisfy himself of their propriety.

Advance payments from the government (as distinguished from progress payments) and guaranteed loans should ordinarily be confirmed.

Evaluation of Contracts in Process

Examining financial statement amounts associated with contracts in process may present certain difficulties. Reviewing a contractor's determination of the status of contracts in process often includes (1) ascertaining that incurred costs have been properly classified, accumulated, and recorded; (2) reviewing estimates of costs to complete performance; and (3) comparing the estimate of total contract costs with the contract price to determine the projected recovery of the related contract costs. The auditor may find that this review will also enable him to evaluate income recognition to date under the contract.

Many contractors make extensive contract reviews similar to those described above in preparing interim and year-end financial statements. The documentation supporting these reviews may be utilized by the independent auditor in his examination. The independent auditor may test the accuracy of detailed cost records in connection with his tests of actual costs incurred.

Contractor's cost estimates should be prepared in a manner which will facilitate comparison with actual cost. The estimates of cost to complete should be prepared in a similar manner. The independent auditor should review the contractor's methods used in developing information for the preparation of the estimates of cost to complete. This review may begin with an evaluation of the contractor's procedures of estimating and bidding, control of contract changes and modifications, including communication between production, engineering, and other personnel involved in performing, estimating, and accounting for contract costs. The independent auditor may also refer to data obtained in his review of contract status to determine that all work to be performed under the contract, including change orders, have been included in the latest estimate of both cost to complete and contract price.

Depending upon the circumstances, the independent auditor may select various auditing procedures to determine the propriety and reasonableness of the estimates to complete. Some of the procedures the independent auditor may use are the following:

- Comparison of current cost estimates with preceding estimates as well as comparison of actual costs incurred on similar previous contracts with original estimates for such contracts.
- 2. Discussion with contractor personnel responsible for preparing underlying data upon which the estimates were developed and personnel responsible for the performance of the work.
- 3. Comparison of the delivery schedule set forth in the contract against actual progress to date.
- 4. Comparison of actual experience on the contract to date with learning curves used by the contractor in preparation of the original cost estimate and subsequent estimates to complete.
- 5. Comparison of material estimates to bills of materials, purchase order commitments, subcontracts, vendor quotes, and other such data.
- 6. Comparison of labor rates for work to be performed in future periods with actual rates, taking into account changes which may result from anticipated union contract negotiations and company policies regarding pay increases.
- 7. Comparison of projections of indirect cost rates used for estimating purposes with projections of revenues and with budgets.
- 8. Review of quality control reporting and customer acceptance to determine that production meets contract requirements.

Following the review and evaluation of the latest estimate of cost to complete, the independent auditor may ordinarily be able to compare the total estimated contract cost with the total estimated contract price. This comparison may serve as a basis for estimating profitability upon which the ultimate recovery of contract cost is dependent. The total estimated contract price used by the contractor should generally—

1. Exclude those costs which may not be allowable in accordance with procurement regulations.

- 2. Not exceed appropriated funds shown in the contract.
- 3. Not exceed the cost or price limitations contained in the contract.
- 4. Give effect to (a) contract changes, (b) incentive (penalty) provisions, and (c) liquidating damages, if any.

The above-described review may also provide data necessary for testing the recording of sales and cost of sales.

The methods and calculations used by the contractor to record sales and cost of sales should generally reflect the most current information available.

The following illustration demonstrates the impact on the recognition of income of differences between actual costs and contract allowable costs.

	Cost Data Used for Negotiation of Contract Price	Actual
Material	\$1,000	\$1,000
Labor	200	200
Overhead ¹	250	300
	1,450	1,500
General and Administrative ²	145	180
	1,595	1,680
Profit	160	75
Contract price	\$1,755	\$1,755
-		

^{1 125} percent of labor allowed: 150 percent actual.

When a contract contains incentive provisions the independent auditor's procedures should include consideration of whether the contractor has adjusted his determination of revenue to recognize appropriate incentive amounts based upon the latest estimate of allowable cost at completion.

The following illustration demonstrates the impact of a cost incentive provision on income recognition taking into consideration the differences between actual and allowable costs.

² 10 percent of total manufacturing costs allowed: 12 percent actual.

	Target	Actual Cost	
	Cost	Allowed	Incurred
Material	\$1,100	\$1,000	\$1,000
Labor	200	200	200
Overhead	300	250	300
General and Administrative	200	150	180
	1,800	1,600	1,680
Profit	180	220^{1}	140^{2}
Contract Price	\$1,980	\$1,820	\$1,820

Incentive—Government and contractor share underruns and overruns 80 percent and 20 percent respectively.

Some contracts contain provisions for awards or penalties for achieving or failing to achieve performance criteria other than cost. (See Contract Incentives, chapter 2.) The independent auditor's review of contract documents may indicate whether such provisions exist. Management's determination of whether or not the goals have been achieved may be tested by examination of correspondence to or from the contracting officer, engineering reports, or evidence of collection of an award or payment of a penalty.

If the independent auditor's review discloses any contract with an indicated loss or a deterioration of the rate of profit, he may decide to undertake additional procedures, including a review of the reasons therefor with the contractor's management. Provision should be made for losses in the period when information indicating a loss becomes available, regardless of the contractor's method of accounting for contracts.

The independent auditor may also want to obtain written representation from the company's financial and other responsible management personnel regarding the status of contracts at the audit date.

 $^{^{1}}$ \$180 + 20 percent (\$1,800 - \$1,600) = \$220.

² Difference between cost incurred and contract sales price as determined in the second column. Amount can be proven by deducting unallowable cost, \$80 (\$1,680 - \$1,600), from allowed profit of \$220.

Change Orders

The major change orders involved in government contracting that directly affect the independent auditor's review are (1) change orders directed by the customer and acknowledged to be changes to the contract and which result not only in additional work (or decreases in work) but also, in many cases, adjustments of the contract price; (2) customer requests and directives not acknowledged as changes to the contract; and (3) contractor-initiated change orders.

For those change orders for which a contract price adjustment has yet to be negotiated, the independent auditor may perform procedures to determine that the contractor's estimate of the increase or decrease in contract price is reasonable based on the task involved, the contractor's cost estimate, and the contractor's prior experience in estimating and negotiating contract changes.

Contingent Liabilities

The independent auditor should determine that consideration has been given to potential liabilities which may result from the many special clauses contained in government contracts and from applicable laws and regulations. In addition to the normal correspondence with legal counsel, the independent auditor may decide to review contract files and related correspondence and any other documents which might disclose potential liabilities. Receivables or payables which have been outstanding for an unusually long period of time may also give indication of dispute or a potential liability. The independent auditor may also inquire of contractor personnel about the possibility of contingent liabilities.

Other Contract Audit Considerations

When appropriate and necessary, the independent auditor should observe a contractor's physical inventory to establish its existence and to assist in the evaluation of the contractor's estimate of the stage of completion. Similar observation procedures may be applied to research and development-type effort (even though of an intangible nature) to establish that work is being performed.

Research and development costs that will be directly reimbursed on the basis of a contract or other arrangement may be recorded as inventory or accounts receivable, as appropriate, when incurred. In such a situation the independent auditor may decide to review provisions of the contract and data approving the expenditure of such costs.

In some instances a contractor may produce quantities in excess of current contract requirements in anticipation of follow-on orders or for spare parts. This frequently occurs when the contractor has taken advantage of a long production run to produce quantities at an economical cost. Evaluation of related costs is more difficult when a need for additional quantities is anticipated in future years. The independent auditor's review of the inventory generally encompasses use of the same valuation rules that are applied to other inventory items. However, the marketability of this inventory may depend solely on the government's need, which may be affected by technological advances, availability of funding, or changes in government procurement priorities. The independent auditor's review might include evaluation of supporting data indicating that the inventory is for contracts on hand or that future procurements are reasonably expected and that adequate consideration has been given to warehousing and carrying costs. Many contractors will have made marketing studies before proceeding with this type of program and such studies may also be consulted as part of the auditor's review.

The accuracy of unliquidated progress payments shown in the financial statements as a reduction of inventory or unbilled receivables may be verified by confirmation.

Contract Termination

When auditing a contract termination, the independent auditor may examine termination notice(s), notices of assessment of excess procurement costs (where applicable), contract terms and related regulations, and settlement proposals of claims to satisfy himself whether the termination is that of convenience or default. The independent auditor should inquire whether (1) the contract work has stopped in accordance with the termination

notice; (2) the contractor has taken all actions required pursuant to the termination clause of the contract; and (3) the contractor has established appropriate accounting to cover full accumulation of cost data to support a termination claim.

An overall objective of the independent auditor's work on termination claims is to determine that claims are recorded in amounts which are estimated to be realizable. The independent auditor should consider whether the contractor has prepared his claim in accordance with applicable termination regulations, including those relating to documentation. The independent auditor's procedures may also include, but not necessarily be limited to, the following:

- 1. Determine the existence of termination inventory (properly tagged and segregated).
- Determine that the termination inventory is included in the claim at actual material and direct labor costs, plus allowable overhead cost.
- Determine that the overhead rates have been developed in accordance with applicable cost principles as expressed in procurement regulations.
- 4. Determine that post-termination settlement expenses are properly included (and documented).
- 5. Determine that billings to date, plus the amount claimed exclusive of settlement expenses, do not exceed the contract price as adjusted.
- 6. Determine that the profit rate used in the termination claim is reasonable, considering the profit rate contemplated at the time the contract was negotiated and the profit rate the contractor would have earned had the contract been completed.
- Determine whether claims of subcontractors or vendors are properly included (and whether notification was given to them and whether their claims that are included have been audited or reviewed).
- 8. Determine that the claim has been properly adjusted for termination inventory diverted to the contractor's other work or for inventory disposed of through sale, including sale as scrap.

9. Determine whether the contractor termination claim has been audited by the government and, if so, have disallowances been recommended.

In connection with termination for default, the independent auditor should consider not only whether all costs applicable to the contract performance have been properly recorded but also whether provision is required for any liabilities for excess reprocurement costs. Documents and correspondence between the termination contracting officer and the contractor may be evidence of existing actual or potential liabilities. If potential material liabilities exist, but amounts are not reasonably determinable, the independent auditor should consider whether disclosure in the notes to financial statements is appropriate. The independent auditor may also consider what effects these matters might have on his report.

In the independent auditor's review of significant termination matters he may, in his judgment, deem it advisable to obtain the opinion of company or outside counsel on the contractor's rights and obligations in the related contract terminations. If the independent auditor has substantial doubt about the outcome of these uncertainties and the amounts involved are material in relation to the contractor's financial statements, he should appropriately modify his opinion.

Renegotiation

In most instances, the independent auditor's examination will be completed before the contractor's renegotiation report is prepared. Nevertheless, he should review the renegotiation status for the current year, based on the best information available, and determine whether a potential liability exists. It may be advisable for the contractor to prepare preliminary renegotiation data for the independent auditor's review. The independent auditor might consider the reasonableness of the method used in segregating renegotiable sales and allocating costs and expenses thereto, and the reasonableness of presenting the resultant renegotiable profit. He may also compare the data with the prior years' reports to see if material differences (such as a change in mix of contract types, allocation methods, and profit margin) exist. Renegotiation is conducted on an annual fiscal year basis, and each

year is judged on its own merits; however, prior years' proceedings and accepted profit levels may be a guide to the existence of potential liability for excessive profits.

The independent auditor should also review the status of the prior year's renegotiation filings. If a contractor has filed reports, substantial evidence may exist, in the form of the filings, correspondence with the Renegotiation Board, orders, agreements, clearance notices, and so forth on the current status of these proceedings.

When a contractor has not had previous renegotiation experience, the independent auditor may decide to review the propriety of the filings and evaluate the reasonableness of the renegotiable profits by reference to renegotiation data showing experience of other contractors. These are published in the Renegotiation Board's annual report and other sources.

Defective Pricing

Public Law 87-653, known as the Truth in Negotiations Act, permits the government to reduce contract prices for "defective pricing" under certain conditions.

Before entering a negotiated contract, a contractor must certify to the government that cost data he has submitted (on Form DD 633) is accurate, complete, and current. If such costs are subsequently found to be inaccurate, incomplete, or noncurrent, the government may be entitled to an adjustment of the negotiated contract price.

The independent auditor should consider the effects of a potential determination of defective pricing. The contract documents will usually indicate which contracts are subject to defective pricing. The independent auditor's review typically might include the comparison of cost data in support of a proposal, with cost performance to date to determine the existence of potential defective pricing. Major differences should be investigated. The contractor's procedures for compliance, which provide a basis for his signing the Certificate of Current Cost or Pricing Data, should be reviewed by the independent auditor. The independent auditor may also inquire as to any government audit agency reviews regarding claims for defective pricing.

If defective pricing exists and the amount is determinable, provision for such amounts should be made in the accounts. If

potential defective pricing exists but the potential amounts involved are undeterminable, consideration should be given to disclosure in the financial statements.

Reporting

As is true in every audit, the independent auditor should consider the effects on his report of questions that arise in matters discussed in this audit guide. In particular, he may need to consider such things as estimated costs to complete a contract, the collectibility of claims and retained amounts, the realization of deferred costs and potential liabilities resulting from contract terminations, renegotiation, redetermination, or defective pricing. In preparing financial statements, a contractor's management is expected to use its estimate of the outcome of such matters. In many cases, the independent auditor will be able to satisfy himself regarding the propriety of management's estimates by considering various types of evidence such as those discussed in this audit guide. If the independent auditor disagrees with management's estimates, he should consider expressing a qualified or an adverse opinion. In some instances, the independent auditor may conclude that the outcome of uncertainties affecting the financial statements is not susceptible to reasonable estimation. When there are such uncertainties, it cannot be determined whether the financial statements should be adjusted and in what amount. In these instances, the independent auditor is unable to evaluate the effects of the uncertainty on the financial statements. This may suggest that he will conclude that he cannot express an unqualified opinion, even though there is extensive disclosure regarding the uncertainty.

APPENDIX A

Securities and Exchange Commission, Accounting Series Release No. 138 of January 12, 1973

Notice of Adoption of Amendments to Forms 8-K, 10-K, 12-K, S-1, S-7, S-8, S-9, S-11, 10 and 12 Requiring Increased Disclosure of Unusual Charges and Credits to Income.

The Securities and Exchange Commission today adopted amendments to its registration and reporting forms to require more detailed and timely reporting, and timely review by independent accountants of extraordinary or material unusual charges and credits to income or material provisions for losses effected by registrants. Proposals to amend these forms, as well as Forms 7-Q and 10-Q, for these purposes were published for comment in Securities Act Release No. 5313 (Securities Exchange Act Release No. 9801) on October 2, 1972. Form 8-K is the form for reporting certain specified material events and transactions pursuant to Sections 13 and 15(d) of the Securities Exchange Act of 1934 (Exchange Act); Forms 10-K and 12-K are the forms for annual reports pursuant to those sections of the Exchange Act; Forms S-1, S-7, S-8, S-9, and S-11 are forms for registration of securities pursuant to the Securities Act of 1933; and Forms 10 and 12 are forms for registration of securities pursuant to the Exchange Act.

The Commission noted when it proposed amendments to these forms that it had observed an increasing number of large charges to income which often appeared without warning and were not generally understood by investors. The Commission is concerned that this trend seems to have accelerated in recent months. While many of such charges result from an identifiable event, many also appear to be made on the basis of a discretionary decision to dispose of marginal facilities or operations or to write off deferred development or excess production costs. In the latter situations, where facilities or operations gradually worsens to the point where a write-off is deemed necessary, registrants have an obligation to forewarn public investors of the deteriorating conditions which unless reversed may result in a subsequent write-off. This includes an obligation to provide information regarding the magnitude of appearance to loss.

nitude of exposure to loss.

The Commission, therefore, reiterates its view that registrants should make special efforts to recognize incipient problems that might lead to such charges and to identify them clearly at the earliest possible time in financial statements and other forms of public disclosure, including public reports filed with the Commission, so that public investors may recognize the risks involved. In this connection, registrants should consider disclosure of the investment involved in divisions operating at a loss; the undepreciated cost of plant and equipment currently considered to be obsolete or of marginal utility; the extent of deferred research and development costs incurred in connection with products whose success is not reasonably assured; and other similar items where significant uncertainties exist as to realization.

The Commission has previously urged more comprehensive disclosure of progress and problems encountered in defense and other long-term contracts which may also give rise to major charges against income (Securities Act Release No. 5263 dated June 22, 1972) and has urged greater diligence in the release of quarterly and other interim reports of operations (Securities Exchange Act Release No. 9559 dated April 5, 1972).

In addition to disclosure of incipient problems, the Commission believes that substantial additional disclosure in regard to extraordinary items and material unusual charges and credits to income or major provisions for loss is necessary to enable public investors to assess the impact of such items. This would include transactions that are classified as extraordinary items under generally accepted accounting principles and other unusual or nonrecurring material transactions or provisions for loss, such as (but not restricted to) material write-downs of inventories, receivables, or deferred research and development costs, provisions for loss on major long-term contracts or purchase commitments, and losses on disposition of assets or business segments. The release of October 2 (33-5313 and 34-9801) contained proposals for such disclosure. The comments received on these proposals have been given careful consideration in determining the amendments to adopt.

The Commission has determined not to adopt the proposed amendment calling for pro forma statements to reflect allocation of charges and credits to prior years since, on the basis of comments received, it concluded that the proposed pro forma disclosure might leave the improper implication that past historical statements were in error as well as imposing substantial clerical burdens on registrants. The amendments adopted herein call for disclosure of the years in which the costs being included in the charge were or are expected to be incurred and the amount of cost in each year by major category of cost.

The Commission has further determined not to adopt the proposed amendments to Forms 7-Q and 10-Q and other related amendments which would have required an estimate of losses by quarters and a subsequent quarterly reconciliation of reserves provided. Comments indicated that quarterly estimates and reconciliations would be difficult to make within acceptable limits of accuracy, would not supply significant data for investors, and would impose a clerical burden on registrants. The amendments adopted herein require an estimate of losses by year and a subsequent annual explanation of differences between estimated and actual amounts and a reconciliation of any reserve provided.

In addition, the Commission has determined to omit the definition of "material" contained in the proposed note to Item 10(a) of Form 8-K. Comments indicated that a definition which relates materiality to a criterion based on separate reporting of an item to stockholders might have the effect of discouraging such disclosure rather than improving the quality thereof. Materiality, therefore, must be considered within the context of the definition contained in Rule 1-02 of Regulation S-X.

The text of the amendments follows:

A. Form 8-K

I. The caption of Item 10 and paragraph (a) have been amended as follows:

Item 10. Extraordinary Item Charges and Credits, Other Material

Charges and Credits to Income of an Unusual Nature, Material Provisions for Loss, and Restatements of Capital Share Account.

- (a) If there have been any extraordinary item charges or credits, any other material charges or credits to income of an unusual nature, or any material provisions for loss, the following shall be furnished for each such charge, credit, or provision:
 - (1) The date of the registrant's determination to make the charge, credit, or provision;
 - (2) A statement of the reasons for making the charge, credit, or provision;
 - (3) An analysis of the components (in dollar amounts) of the charge, credit, or provision, which includes
 - (i) A description of the various types of items written down or off;
 - (ii) A description of any provision for losses on liquidation of assets or for other losses including a detailed schedule showing the components of any losses provided for, which schedule shows the amount of administrative and fixed costs, if any, allocated to the loss;
 - (iii) A description of any estimated recoveries or costs netted against the charge or credit;
 - (4) A statement setting forth the years in which costs being reflected in the charge (or net credit) being described were or are expected to be incurred and the amount of cost for each year by major category (e.g., fixed assets, research and development costs, operating losses);

- (5) A statement setting forth the estimated amount of net cash outlays (or in-flows) associated with the charge (or credit) in the year the charge (or credit) is made and in each subsequent year in which such estimate of the cash amount differs from the amount of total costs stated in part (4) for that year;
- (6) A description of the accounting principles or practices followed and any changes therein or in the methods of applying such principles or practices which was made in connection with the transaction; and
- (7) A report from the registrant's independent accountants in which they state that they have read the description in the Form 8-K of the facts set forth therein and of the accounting principles applied and whether they believe that on the basis of the facts so set forth that such accounting principles are fairly applied in conformity with generally accepted accounting principles or, if not, the respects in which they believe the principles do not conform to generally accepted accounting principles.
- II. The following new instruction 8 has been added under EX-HIBITS of Form 8-K.
- 8. Reports from the independent accountants furnished pursuant to Item 10.

B. Form 10-K

A new instruction (6) has been added to the instructions to Item 2, Summary of Operations, as follows:

(6) For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be incurred in the fiscal year being reported on or the prior fiscal year, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided.

C. Form 12-K

A new instruction 6 has been added to the INSTRUCTIONS AS TO EXHIBITS, as follows:

6. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be incurred in the fiscal year being reported on or the prior fiscal year, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided.

D. Form S-1

A new instruction 7 has been added to Item 6, Summary of Earnings, as follows:

7. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided. If the issuer was not a registrant prior to the filing of this registration statement, this instruction shall apply to any transaction subsequent to January 31, 1973 which would have been required to be reported pursuant to Item 10(a) of Form 8-K had the issuer been a registrant and in which an amount of cost was estimated to be applicable to the fiscal years being reported on.

E. Form S-7

Instruction 8 of Item 6, Statement of Income, has been changed to number 9 and a new instruction 8 has been added, as follows:

8. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided.

F. Form S-8

Instruction 4 of Item 19, Summary of Earnings, has been changed to number 5 and a new instruction 4 has been added, as follows:

4. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided.

G. Form S-9

Instruction 6 to part (a) of Item 3, Statements of Income, has been changed to number 7 and a new instruction 6 has been added, as follows:

6. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided.

H. Form S-11

A new instruction 7 has been added to part (a) of Item 6, Summary Financial Data, as follows:

7. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided. If the issuer was not a registrant prior to the filing of this registration statement, this instruction shall apply to any transaction subsequent to January 31, 1973 which would have been required to be reported pursuant to Item 10(a) of Form 8-K had the issuer been a registrant and in which an amount of cost was estimated to be applicable to the fiscal years being reported on.

I. Form 10

A new instruction 5 has been added to Item 2, Summary of Operations, as follows:

5. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided. If the issuer was not a registrant prior to the filing of this registration statement, this instruction shall apply to any transaction subsequent to January 31, 1973 which would have been required to be reported pursuant to Item 10(a) of Form 8-K had the issuer been a registrant and in which an amount of cost was estimated to be applicable to the fiscal years being reported on.

J. Form 12

A new instruction 9 has been added to the <u>INSTRUCTIONS AS TO</u> EXHIBITS, as follows:

9. For any event subsequent to January 31, 1973, which was required to be reported pursuant to Item 10(a) of Form 8-K in which an amount of cost was estimated to be applicable to any of the fiscal years being reported on, summarize such transaction and state the amounts of such estimated cost and the amounts of the actual cost incurred in such periods, the reasons for differences between estimated and actual amounts, if any, and provide a detailed reconciliation showing all charges and credits to any reserve provided. If the issuer was not a registrant prior to the filing of this registration statement, this instruction shall apply to any transaction subsequent to January 31, 1973 which would have been required to be reported pursuant to Item 10(a) of Form 8-K had the issuer been a registrant and in which an amount of cost was estimated to be applicable to the fiscal years being reported on.

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The foregoing amendments are adopted pursuant to Sections 6, 7, 8, 10 and 19(a) of the Securities Act of 1933 and Sections 13, 15(d) and 23(a) of the Securities Exchange Act of 1934. The amendments shall be effective with respect to reports on Form 8-K and registration statements on Forms S-1, S-7, S-8, S-9, S-11, 10 and 12, and with respect to annual reports on Forms 10-K and 12-K filed on or after February 28, 1973.

By the Commission.

Ronald F. Hunt Secretary

APPENDIX B

Securities and Exchange Commission, Accounting Series Release No. 164 of November 21, 1974

Notice of adoption of amendments to Regulation S-X to provide for improved disclosures related to defense and other long-term contract activities.

A. INTRODUCTION

The Securities and Exchange Commission has long been concerned about the quality of disclosures made by registrants engaged in defense and other long-term contract activities because these activities involve inventories and receivables with unique risk and liquidity characteristics. After initially urging corporate managers to review their disclosure policies with respect to such contracting activities, the Commission published for comment proposed amendments to Rules 5-02.3 and 5-02.6 of Regulation S-X.²

As noted in its release proposing these amendments, the Commission believes that it is necessary and appropriate to expand these Rules to require disclosure of greater detail in certain critical areas of long-term contract activity, particularly with respect to the nature of costs accumulated in inventories, the effect of cost accumulation policies on cost of sales, and the effect of revenue recognition practices on receivables and inventories.

The proposed amendments elicited numerous letters of comment which have been duly considered by the Commission in the formulation of the amendments specifically adopted in this release. The following discussion outlines the Commission's responses to certain of these comments as reflected in the adopted rules on receivables and inventories.

Comments on Disclosure of Receivables-Rule 5-02.3

Paragraph (b). Several commentators pointed out that the proposed amendment could be broadly construed to require additional disclosure

¹ Securities Act Release No. 5263, Securities Exchange Act Release No. 9650, June 22, 1972.

² Securities Act Release No. 5492, Securities Exchange Act Release No. 10775, May 6, 1974.

for receivables other than those arising from long-term contract activities. At the present time the Commission intends only to improve disclosures related to long-term contract activities. Consequently, the amendment to this paragraph has been deleted and the proposed disclosure of collection expectations has been incorporated in the amendments addressed specifically to receivables arising from such activities.

Paragraph (e). Some commentators suggested that the retainage disclosure should be limited to amounts not expected to be collected within one year. Due to the unique liquidity characteristics of retainage, the Commission believes that any material amount of retainage should be disclosed no matter when such amount is expected to be collected. However, the Commission also believes that the significant uncertainties which often affect the determination of a mutually satisfactory contract completion may cause the estimates of amounts to be collected within specific years to become progressively less reliable. Consequently, the amendment as adopted requires the isolation of only the aggregate amount of retainage expected to be collected after one year. However, registrants are encouraged to provide estimated collections by year if their experience or other factors enable them to do so with reasonable accuracy.

Several commentators suggested that the amendment should be modified to provide for amounts retained by contractors pursuant to the provisions of subcontracts. The Commission believes that this is unnecessary because Rule 5-02.25 can be interpreted to require separate disclosure of significant amounts of retentions payable to subcontractors.

Paragraph (f). Numerous commentators pointed out that a literal interpretation of the proposed amendment would call for disclosures regarding all accrued receivables rather than just those related to long-term contracts and might also result in a duplication of disclosures made under paragraph (g). The Commission recognizes the validity of these comments and the amendment has been modified accordingly.

The amendment as adopted also calls for disclosure of the amounts of receivables not billed or billable that are expected to be collected after one year. The Commission believes that disclosure of the timing of expected collections provides investors with meaningful liquidity and risk information.

It should be noted that the amendment is not directed at items which are "unbilled" at the balance sheet date merely because the necessary paperwork has not been processed in accordance with the normal operation of a billing system. Such items would generally be considered "billable" for purposes of this Rule.

Paragraph (g). Many commentators argued that the proposed amendment was too broad since it would require the disclosure of amounts which could be determined with reasonable certainty under express contractual escalation or change order clauses and which

would be virtually assured of realization. The Commission has concluded that amounts due under routine change orders and escalation features commonly found in the terms of contracts are typically not subject to such uncertainty that separate disclosure is required. On the other hand, it believes that disclosure is necessary when amounts are recorded which are not reasonably determinable under the specific terms of existing contracts. Accordingly, the text of this rule has been amended to require disclosure where the amounts included in receivables whether billed or unbilled, are either claims or other similar items subject to uncertainty concerning their determination or ultimate realization.

Several commentators questioned the meaning of the term "components" as used in the requirement for footnote disclosure of the principal items comprising the aggregate of claims and other similar items subject to uncertainties. In response, the Commission has used the term "nature and status" to more accurately reflect its intentions and has expanded the attached Exhibit to provide examples of disclosure envisioned by these terms.

Comments on Disclosure of Inventories-Rule 5-02.6

Paragraph (b). In response to numerous comments, this amendment has been modified in several significant ways. First, in recognition of the recently adopted Statement of Financial Accounting Standards No. 2, the Commission has deleted the requirements for disclosure of the amounts of research and development costs incurred during the period or remaining in inventory. Compliance with that Statement will obviate the need for the disclosure of these amounts. However, the amendment still contemplates a description of such costs being carried in inventory in compliance with the new Statement.

Second, the Commission recognizes that some registrants may find it impracticable to determine the actual amount of general and administrative costs remaining in inventory at the balance sheet dates. However, the Commission believes that registrants can provide reasonable estimates of such remaining costs determined, for example, on the assumption that costs related to a particular contract or program have been removed from inventory on a basis proportional to the totals of the various cost elements expected to be charged to cost of sales for that contract or program. The assumptions used to develop these estimates should be described in a note to the financial statements.

Third, the Commission expects that the description of the cost elements included in inventory will appropriately disclose the existence of items not typically included in inventoried costs in a usual manufacturing operation. Described items may include, for example, retained costs representing the excess of manufacturing or production costs over the amounts charged to costs of sales for delivered or inprocess units, initial tooling and other deferred start-up costs, general and administrative costs, or research and development under contractual arrangements. In general, the Commission believes that the

accounting treatment of such costs is sufficiently unique to warrant the disclosure of their existence and, to the extent noted below, their magnitude.

Paragraph (c). This paragraph contains the last sentence of Rule 5-02.6(b) as it existed prior to the amendments adopted in this release. However, the requirements of this paragraph may be amended by the proposal published in Securities Act Release No. 5427. Comments on that proposal are still being considered.

Paragraph (d). Numerous commentators pointed out that the proposed definition would include supply or service contracts expected to be in process for more than one year even though such contracts may not involve the unique risk and liquidity characteristics associated with long-term manufacturing and construction contracts or programs. The Commission believes that the proposed definition was susceptible to an overly broad interpretation. Consequently, the Commission has modified the definition to deal explicitly with all contracts or programs accounted for on either a percentage of completion or a completed contract basis provided that any such contract or program has associated with it material amounts of inventories or unbilled receivables and has been or is expected to be performed over a period of more than twelve months.

Paragraph (d)(i). Many commentators argued that the amounts reported under this proposed amendment would not be mutually exclusive from the amounts reported under subparagraph (iii). To eliminate this problem, the Commission has modified proposed subparagraphs (i) and (iii) and now deals with these matters in one subparagraph which requires disclosure of (1) the aggregate amount of (a) manufacturing or production costs which have been carried forward under a "learning curve" concept and (b) any related costs which have been deferred for allocation to future production, and (2) the portion of such aggregate amount which would not be absorbed in cost of sales based on existing firm orders. The amendment also calls for the isolation of the cost elements included in the costs carried forward if it is practicable for the registrant to provide this detail. The Commission believes that these disclosures will provide investors with meaningful information concerning the nature of costs accumulated in inventories.

Paragraph (d)(ii). Many of the comments noted above under proposed Rule 5-02.3(g) were also directed to this amendment. The Commission has modified this subparagraph to reflect those comments. This amendment recognizes that certain registrants classify amounts representing claims or other similar items subject to uncertainties as inventories rather than as receivables reportable under Rule 5-02.3(g). Regardless of where such amounts are classified, the Commission believes that material amounts must be disclosed together with an appropriate description of the nature and status of the principal items

comprising such amounts. In this connection, the Commission has expanded the accompanying Exhibit to provide helpful examples of the type of disclosure envisioned by this Rule.

Paragraph (d)(v). Numerous commentators expressed the view that the concept of "title" is fraught with substantial difficulties of legal interpretation and that in any event it would be unduly burdensome to attempt such an analysis of the items included in inventory. The Commission accepts these comments and accordingly has deleted this proposal.

The subject rules, as amended herein, apply to disclosure in financial statements filed with the Commission. Registrants and their independent public accountants must make the determination as to what information regarding such matters is required to constitute satisfactory financial statement disclosure under generally accepted accounting principles.

B. AMENDMENTS

Rules 5-02.3 and 5-02.6 of Regulation S-X are amended as follows (amendments underlined):

Rule 5-02-3. Accounts and notes receivable.—

- (a) through (d) (No change)
- (e) If receivables include amounts representing balances billed but not paid by customers under retainage provisions in contracts, state the amount thereof either in the balance sheet or in a note to the financial statements. In addition, state the amounts, if any expected to be collected after one year. If practicable, state by years when the amounts are expected to be collected.
- (f) If receivables include amounts (other than amounts reportable under paragraph (g) below) representing the recognized sales value of performance under long-term contracts (see Rule 5-02.6(d)) and such amounts had not been billed and were not billable to customers at the date of the balance sheet, state separately in the balance sheet or in a note to the financial statements, the amount thereof and include a general description of the prerequisites for billing. In addition, state the amount, if any, expected to be collected after one year.
- (g) If receivables include amounts under long-term contracts (see Rule 5-02.6(d)), whether billed or unbilled, representing claims or other similar items subject to uncertainty concerning their determination or ultimate realization, state separately in the balance sheet or in a note to the financial statements, the amount thereof and include

a description of the nature and status of the principal items comprising such amount. In addition, state the amount, if any, expected to be collected after one year.

Rule 5-02.6. Inventories.—(a) State separately here, or in a note referred to herein, if practicable, the major classes of inventory such as (1) finished goods; (2) inventoried costs relating to long-term contracts or programs (see (d) below and Rule 3-11); (3) work in process (see Rule 3-11); (4) raw materials; and (5) supplies.

(b) The basis of determining the amounts shall be stated.

If "cost" is used to determine any portion of the inventory amounts, describe the method of determining cost. This description shall include the nature of the cost elements included in inventory.

If "market" is used to determine any portion of the inventory amounts, describe the method of determining "market" if other than current replacement cost.

The method by which amounts are removed from inventory (e.g., "average cost," "first-in, first-out," "last-in, first-out," "estimated average cost per unit") shall be described. If the estimated average cost per unit is used as a basis to determine amounts removed from inventory under a total program or similar basis of accounting, the principal assumptions (including, where meaningful, the aggregate number of units expected to be delivered under the program, the number of units delivered to date and the number of units on order) shall be disclosed.

If any general and administrative costs are charged to inventory, state in a note to the financial statements the aggregate amount of the general and administrative costs incurred in each period and the actual or estimated amount remaining in inventory at the date of each balance sheet.

- (c) If the LIFO inventory method is used, the excess of replacement or current cost over stated LIFO value shall, if material, be stated parenthetically or in a note to the financial statements. (Note: Paragraph (c) as proposed in Securities Act Release 5427 would modify this requirement. Comments on that proposal continue under consideration.)
- (d) For purposes of Rules 5-02.3 and 5-02.6, long-term contracts or programs include (1) all contracts or programs for which gross profits are recognized on a percentage-of-completion method of accounting or any variant thereof (e.g., delivered unit, cost to cost, physical com-

pletion) and (2) any contracts or programs accounted for on a completed contract basis of accounting where, in either case, the contracts or programs have associated with them material amounts of inventories or unbilled receivables and where such contracts or programs have been or are expected to be performed over a period of more than twelve months. Contracts or programs of shorter duration may also be included, if deemed appropriate.

For all long-term contracts or programs, the following information, if applicable, shall be stated in a note to the financial statements:

- (i) The aggregate amount of manufacturing or production costs and any related deferred costs (e.g., initial tooling costs) which exceeds the aggregate estimated cost of all in-process and delivered units on the basis of the estimated average cost of all units expected to be produced under long-term contracts and programs not yet complete, as well as that portion of such amount which would not be absorbed in cost of sales based on existing firm orders at the latest balance sheet date. In addition, if practicable, disclose the amount of deferred costs by type of cost (e.g., initial tooling, deferred production, etc.).
- (ii) The aggregate amount representing claims or other similar items subject to uncertainty concerning their determination or ultimate realization, and include a description of the nature and status of the principal items comprising such aggregate amount.
- (iii) The amount of progress payments netted against inventory at the date of the balance sheet.

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The amendments to Regulation S-X have been adopted pursuant to authority conferred on the Commission by the Securities Act of 1933, particularly Sections 6, 7, 8, 10 and 19(a) thereof and the Securities Exchange Act of 1934, particularly Sections 12, 13, 15(d) and 23(a) thereof.

The above amendments to Regulation S-X shall be applicable to financial statements for periods ending on or after December 20, 1974. Such disclosure is recommended but not required for financial statements for fiscal periods ending prior to December 20, 1974.

By the Commission.

George A. Fitzsimmons Secretary

C. EXHIBIT

The following hypothetical example is furnished to illustrate the character and detail of the disclosures which might be furnished in response to Rules 5-02.3 and 5-02.6 of Regulation S-X as amended by the accompanying release. The illustration is provided to assist in understanding and evaluating the amendments.

XYZ Company and Subsidiaries Consolidated Balance Sheets At December 31,

	1	1974		1973
	(000 omitted)			
ASSETS				
CURRENT ASSETS:				
Cash	\$	438	\$	627
Accounts receivable: Trade and other receivables, net of allowance for uncollectible accounts of				
\$38,000 in 1974 and \$36,000 in 1973 Long-term contracts and programs (notes	2	2,846	3	2,396
1 and 2)	18	3,985	_19	9,036
Total accounts receivable	21	,831	2	1,432
Inventories and costs relating to long- term contracts and programs in proc- ess, net of progress payments (notes				
1 and 3)	ϵ	3,278	4	6,257
Prepaid expenses		46		27
Total current assets	\$28	3,593	\$2	8,343

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Revenue Recognition. Sales of commercial products under long-term contracts and programs are recognized in the accounts as deliveries are made. The estimated sales value of performance under Government fixed-price and fixed-price incentive contracts in process is recognized under the percentage of completion method of accounting whereunder the estimated sales value is determined on the basis of physical completion to date (the total contract amount multiplied by percent of performance to date less sales value recognized in previous periods) and costs (including general and administrative, except as described below) are expensed as incurred. Sales under cost-reimbursement contracts are recorded as costs are incurred and include estimated earned fees in the proportion that costs incurred to date bear to total estimated costs. The fees under certain Government contracts may be increased or decreased in accordance with cost or performance incentive provisions which measure actual performance against established targets or other criteria. Such incentive fee awards or penalties are included in sales at the time the amounts can be determined reasonably.

Inventories. Inventories, other than inventoried costs relating to long-term contracts and programs, are stated at the lower of cost (principally first-in, first-out) or market. Inventoried costs relating to long-term contracts and programs are stated at the actual production cost, including factory overhead, initial tooling and other related nonrecurring costs, incurred to date reduced by amounts identified with revenue recognized on units delivered or progress completed. General and administrative costs applicable to cost-plus Government contracts are also included in inventories. Inventoried costs relating to long-term contracts and programs are reduced by charging any amounts in excess of estimated realizable value to cost of sales. The costs attributed to units delivered under long-term commercial contracts and programs are based on the estimated average cost of all units expected to be produced and are determined under the learning curve concept which anticipates a predictable decrease in unit costs as tasks and production techniques become more efficient through repetition.

In accordance with industry practice, inventories include amounts relating to contracts and programs having production cycles longer than one year and a portion thereof will not be realized within one year.

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NOTE 2-ACCOUNTS RECEIVABLE

The following tabulation shows the component elements of accounts receivable from long-term contracts and programs:

	$\frac{1974}{(000 \text{ or})}$	$\frac{1974}{(000 \text{ omitted})} \frac{1973}{}$	
U.S. Government: Amounts billed	\$ 7,136	\$ 6,532	
Recoverable costs and accrued profit on progress completed—not billed	4,173	3,791	
Unrecovered costs and estimated profits subject to future negotiation—not			
billed	$\frac{1,468}{12,777}$	$\frac{1,735}{12,058}$	
Commercial Customers:			
Amounts billed	1,937	3,442	
Recoverable costs and accrued profit on units delivered—not billed	1,293	364	
Retainage, due upon completion of contracts	2,441	2,279	
Unrecovered costs and estimated profits subject to future negotiation—not			
billed	537	893	
	\$18,985	\$19,036	

The balances billed but not paid by customers pursuant to retainage provisions in construction contracts will be due upon completion of the contracts and acceptance by the owner. Based on the Company's experience with similar contracts in recent years, the retention balances at December 31, 1974 are expected to be collected as follows: \$270,000 in 1975, \$845,000 in 1976 and the balance in 1977.

Recoverable costs and accrued profit not billed comprise principally amounts of revenue recognized on contracts for which billings had not been presented to the contract owners because the amounts were not billable at balance sheet date. It is anticipated such unbilled amounts receivable from the U.S. Government at December 31, 1974 will be

billed over the next 60 days as units are delivered. The unbilled accounts receivable applicable to commercial customers are billable upon completion of performance tests which are expected to be completed in September 1975.

Unrecovered costs and estimated profits subject to future negotiation, the principal amount of which is expected to be billed and collected within one year, consist of the following elements:

U.S. Government Contracts:	1974 (000 o	1973 mitted)
Excess of estimated or proposed over provisional price Amounts claimed for incremental costs arising from customer occasioned	\$ 190	\$ 157
contract delays	$\frac{1,278}{1,468}$	$\frac{1,578}{1,735}$
Commercial Contracts: Unrecovered costs and estimated profit relating to work not specified in ex-		
press contract provisions	\$2,005	893 \$2,628

NOTE 3—INVENTORIES

Inventories and inventoried costs relating to long-term contracts and programs are classified as follows:

	December 31,	
	1974	1973
	(000 omitted)	
Finished goods	\$3,562	\$3,435
Inventoried costs relating to long-term contracts and programs, net of amounts attributed to revenues recognized to		
date	2,552	2,638
Work in process	738	947
Raw materials	45 3	383
Supplies	112	71
••	7,417	7,474
Deduct progress payments related to		
long-term contracts and programs	1,139	1,217
	\$6,278	\$6,257

The following tabulation shows the cost elements included in inventoried costs related to long-term contracts:

	December 31,		
	1974	1973	
	(000 omitted)		
Production costs of goods currently in process	\$1,184	\$ 960	
Excess of production cost of delivered units over the estimated average cost of all units expected to be produced	647	893	
Unrecovered costs subject to future negotiation	280	310	
General and administrative costs	260	270	
Initial tooling and other non-recurring			
costs	181	205	
	\$2,552	\$2,638	

The inventoried costs relating to long-term contracts and programs includes unrecovered costs of \$280,000 and \$310,000 at December 31, 1974 and 1973, respectively, which are subject to future determination through negotiation or other procedures not complete at balance sheet dates. Of such amounts, \$260,000 and \$280,000 are in respect to contracts under which all goods have been delivered at December 31, 1974 and 1973, respectively. The unrecovered amount at December 31, 1973 consisted of three items, one of which was settled during 1974. The amount remaining at December 31, 1974 is represented principally by a claim asserted against a customer for amounts incurred as a result of faulty materials furnished by the customer which in turn caused delays in performance under the contract. In the opinion of management these costs will be recovered by contract modification or litigation. It is expected that the negotiations which are being conducted currently with the customer, will be successfully concluded during the next twelve months. If this expectation is not realized, the matter will be referred to the Armed Services Board of Contract Appeals, with the consequence that settlement could be delayed for an indeterminate period.

The actual per unit production cost of the NX-4C aircraft produced during the most recent fiscal year was less than the estimated average per unit cost of all units expected to be produced under the program. Prior to 1974, the Company's NX-4C commercial aircraft program was in the early high cost period. During the initial years of the program, the cost of units produced exceeded the sales price of the delivered units and the estimated average unit cost of all units to be produced under the program. At December 31, 1974, inventories in-

cluded costs of \$647,000 representing the excess of costs incurred over estimated average costs per aircraft for the 117 aircraft delivered through the year end. The estimated average unit cost is predicated on the assumption that 250 planes will be produced and that production costs (principally labor and materials) will decrease as the project matures and efficiencies associated with increased volume, improved pròduction techniques and the performance of repetitive tasks (the learning curve concept) are realized. (Note: The amount by which the production costs of the equivalent finished units in process at the date of the latest balance sheet exceeds the cost of such units on the basis of the estimated average unit cost of all units expected to be produced under the program should be stated. Since, as stated above, the actual per unit production cost is currently less than the estimated average per unit cost of all units expected to be produced under the program, no such excess is assumed in this example.)

Recovery of the deferred production, initial tooling and related non-recurring costs is dependent on the number of aircraft ultimately sold and actual selling prices and production costs associated with future transactions. Sales significantly under estimates or costs significantly over estimates could result in the realization of substantial losses on the program in future years. Realization of approximately \$421,000 of the gross commercial aircraft inventories at December 31, 1974 is dependent on receipt of future firm orders.

Based on studies made by and on behalf of the Company, management believes there exists for this aircraft a market for over 250 units, including deliveries to date, with production and deliveries continuing at a normal rate to at least 1980. At December 31, 1974, 117 aircraft had been delivered under the program, and the backlog included 64 firm unfilled orders and options for 43 units.

The aggregate amounts of general and administrative costs incurred during 1974 and 1973 were \$2,251,000 and \$2,238,000, respectively. As stated in Note 1, the Company allocates general and administrative costs to certain types of Government contracts. The amounts of general and administrative costs remaining in inventories at December 31, 1974 and 1973 are estimated at \$260,000 and \$270,000, respectively. Such estimates assume that costs have been removed from inventories on a basis proportional to the amounts of each cost element expected to be charged to cost of sales.

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APPENDIX C

Statement of Position

81-1

Accounting for Performance of Construction-Type and Certain Production-Type Contracts

July 15, 1981

Proposal to the Financial Accounting Standards Board

Issued by Accounting Standards Division

American Institute of Certified Public Accountants

AICPA

NOTE

Statements of position of the accounting standards division are issued for the general information of those interested in the subject. They present the conclusions of at least a majority of the accounting standards executive committee, which is the senior technical body of the Institute authorized to speak for the Institute in the areas of financial accounting and reporting and cost accounting.

The objective of statements of position is to influence the development of accounting and reporting standards in directions the division believes are in the public interest. It is intended that they should be considered, as deemed appropriate, by bodies having authority to issue pronouncements on the subject. However, statements of position do not establish standards enforceable under the Institute's code of professional ethics.

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Accounting for Performance of Construction-Type and Certain Production-Type Contracts

Introduction

This statement of position provides guidance on the application of generally accepted accounting principles in accounting for the performance of contracts for which specifications are provided by the customer for the construction of facilities or the production of goods or for the provision of related services. Changes in the business environment have increased significantly the variety and uses of those types of contracts and the types of business enterprises that use them. In the present business environment, diverse types of contracts, ranging from relatively simple to highly complex and from relatively short- to long-term, are widely used in many industries for construction, production, or provision of a broad range of goods and services. However, existing principles related to accounting for contracts were written in terms of long-term construction-type contracts, and they are not stated in sufficient detail for the scope of activities to which they presently are applied. Those activities range far beyond the traditional construction-type activity (the design and physical construction of facilities such as buildings, roads, dams, and bridges) to include, for example, the development and production of military and commercial aircraft, weapons delivery systems, space exploration hardware, and computer software. The accounting standards division believes that guidance is now needed in this area of accounting.

The Basic Accounting Issue

2. The determination of the point or points at which revenue should be recognized as earned and costs should be recognized as expenses is a major accounting issue common to all business enterprises engaged in the performance of contracts of the types covered by this statement. Accounting for such contracts is essentially a process of measuring the results of relatively long-term events and allocating those results to relatively short-term accounting periods. This involves considerable use of estimates in determining revenues, costs, and profits and in assigning the amounts to accounting periods. The process is complicated by the need to evaluate continually the uncertainties inherent in the performance of contracts and by the need to rely on estimates of revenues, costs, and the extent of progress toward completion.

Present Accounting Requirements and Practices

3. The pervasive principle of realization and its exceptions and modifications are central factors underlying accounting for contracts. APB Statement 4 states:

Revenue is generally recognized when both of the following conditions are met: (1) the earnings process is complete or virtually complete, and (2) an exchange has taken place. [Paragraph 150]

Revenue is sometimes recognized on bases other than the realization rule. For example, on long-term construction contracts revenue may be recognized as construction progresses. This exception to the realization principle is based on the availability of evidence of the ultimate proceeds and the consensus that a better measure of periodic income results. [Paragraph 152]

The exception to the usual revenue realization rule for long-term construction-type contracts, for example, is justified in part because strict adherence to realization at the time of sale would produce results that are considered to be unreasonable. The judgment of the profession is that revenue should be recognized in this situation as construction progresses. [Paragraph 174]

- 4. Accounting Research Bulletin no. 45 (ARB 45), Long-Term Construction-Type Contracts, issued by the AICPA Committee on Accounting Procedure in 1955, describes the two generally accepted methods of accounting for long-term construction-type contracts for financial reporting purposes:
- The percentage-of-completion method recognizes income as work on a contract progresses; recognition of revenues and profits generally is related to costs incurred in providing the services required under the contract.

• The completed-contract method recognizes income only when the contract is completed, or substantially so, and all costs and related revenues are reported as deferred items in the balance sheet until that time.

The AICPA Industry Audit Guide, Audits of Government Contractors, describes units-of-delivery as a modification of the percentage-of-completion method of accounting for contracts.

• The units-of-delivery method recognizes as revenue the contract price of units of a basic production product delivered during a period and as the cost of earned revenue the costs allocable to the delivered units; costs allocable to undelivered units are reported in the balance sheet as inventory or work in progress. The method is used in circumstances in which an entity produces units of a basic product under production-type contracts in a continuous or sequential production process to buyers' specifications.

The use of either of the two generally accepted methods of accounting involves, to a greater or lesser extent, three key areas of estimates and uncertainties: (a) the extent of progress toward completion, (b) contract revenues, and (c) contract costs. Although the ultimate amount of contract revenue is often subject to numerous uncertainties, the accounting literature has given little attention to the difficulties of estimating contract revenue.

5. ARB 45, paragraph 15, describes the circumstances in which each method is preferable as follows:

The committee believes that in general when estimates of costs to complete and extent of progress toward completion of long-term contracts are reasonably dependable, the percentage-of-completion method is preferable. When lack of dependable estimates or inherent hazards cause forecasts to be doubtful, the completed-contract method is preferable.

Both of the two generally accepted methods are widely used in practice. However, the two methods are frequently applied differently in similar circumstances. The division believes that the two methods should be used in specified circumstances and should not be used as acceptable alternatives for the same circumstances. Accordingly, identifying the circumstances in which either of the methods is preferable and the accounting that should be followed in the application of those methods are among the primary objec-

tives of this statement of position. This statement provides guidance on the application of ARB 45 and does not amend that bulletin.

In practice, methods are sometimes found that allocate contract costs and revenues to accounting periods on (a) the basis of cash receipts and payments or (b) the basis of contract billings and costs incurred. Those practices are not generally accepted methods of accounting for financial reporting purposes. However, those methods are appropriate for other purposes, such as the measurement of income for income tax purposes, for which the timing of cash transactions is a controlling factor. Recording the amounts billed or billable on a contract during a period as contract revenue of the period, and the costs incurred on the contract as expenses of the period, is not acceptable for financial reporting purposes because the amounts billed or billable on a contract during a period are determined by contract terms and do not necessarily measure performance on the contract. Only by coincidence might those unacceptable methods produce results that approximate the results of the generally accepted method of accounting for contracts that are appropriate in the circumstances.

Other Pronouncements and Regulations Affecting Contract Accounting

- 7. Accounting Research Bulletin no. 43, chapter 11, "Government Contracts," prescribes generally accepted principles in three areas of accounting for government contracts. Section A of that chapter deals with accounting problems arising under cost-plus-fixed-fee contracts. Section B deals with certain aspects of the accounting for government contracts and subcontracts that are subject to renegotiation. Section C deals with problems involved in accounting for certain terminated war and defense contracts. Those pronouncements govern accounting for contracts in the areas indicated.
- 8. The pricing and costing of federal government contracts are governed by cost principles contained in procurement regulations such as the Federal Procurement Regulation (FPR) and the Defense Acquisition Regulation (DAR). Also, most major government contractors are subject to cost accounting standards issued by the Cost Accounting Standards Board (CASB). CASB standards apply

to the cost accounting procedures that government contractors use to allocate costs to contracts; CASB standards are not intended for financial reporting.

9. Accounting for contracts for income tax purposes is prescribed by the Internal Revenue Code and the related rules and regulations. The methods of accounting for contracts under those requirements are not limited to the two generally accepted methods for financial reporting. For numerous historical and practical reasons, tax accounting rules and regulations differ from generally accepted accounting principles. Numerous nonaccounting considerations are appropriate in determining income tax accounting. This statement deals exclusively with the application of generally accepted accounting principles to accounting for contracts in financial reporting. It does not apply to income tax accounting and is not intended to influence income tax accounting.

Need for Guidance

10. Because of the complexities and uncertainties in accounting for contracts, the increased use of diverse types of contracts for the construction of facilities, the production of goods, or the provision of related services, and present conditions and practices in industries in which contracts are performed for those purposes, additional guidance on the application of generally accepted accounting principles is needed. This statement of position provides that guidance. Appendix A contains a schematic chart showing the organization of the statement.

Scope of Statement of Position

11. This statement of position applies to accounting for performance of contracts for which specifications are provided by the customer for the construction of facilities or the production of goods or the provision of related services that are reported in financial statements prepared in conformity with generally accepted accounting principles.¹ Existing authoritative accounting literature

¹This statement is not intended to apply to "service transactions" as defined in the FASB's October 23, 1978 Invitation to Comment, Accounting for Certain Service Transactions. However, it applies to separate contracts to provide services essential to the construction or production of tangible property, such as design, engineering, procurement, and construction management (see paragraph 13 for examples).

uses the terms "long-term" and "construction-type" in identifying the types of contracts that are the primary focus of interest. The term "long-term" is not used in this statement of position as an identifying characteristic because other characteristics are considered more relevant for identifying the types of contracts covered. However, accounting for contracts by an entity that primarily has relatively short-term contracts is recommended in paragraph 31 of this statement. The scope of the statement is not limited to construction-type contracts.

Contracts Covered

- 12. Contracts covered by this statement of position are binding agreements between buyers and sellers in which the seller agrees, for compensation, to perform a service to the buyer's specifications.² Contracts consist of legally enforceable agreements in any form and include amendments, revisions, and extensions of such agreements. Performance will often extend over long periods, and the seller's right to receive payment depends on his performance in accordance with the agreement. The service may consist of designing, engineering, fabricating, constructing, or manufacturing related to the construction or the production of tangible assets. Contracts such as leases and real estate agreements, for which authoritative accounting literature provides special methods of accounting, are not covered by this statement.
- 13. Contracts covered by this statement include, but are not limited to, the following:
- Contracts in the construction industry, such as those of general building, heavy earth moving, dredging, demolition, design-build contractors, and specialty contractors (for example, mechanical, electrical, or paving).
- Contracts to design and build ships and transport vessels.
- Contracts to design, develop, manufacture, or modify complex aerospace or electronic equipment to a buyer's specification or to provide services related to the performance of such contracts.
- Contracts for construction consulting service, such as under agency contracts or construction management agreements.

²Specifications imposed on the buyer by a third party (for example, a government or regulatory agency or a financial institution) or by conditions in the marketplace are deemed to be "buyer's specifications."

- Contracts for services performed by architects, engineers, or architectural or engineering design firms.
- 14. Contracts not covered by this statement include, but are not limited to, the following:
- Sales by a manufacturer of goods produced in a standard manufacturing operation, even if produced to buyers' specifications, and sold in the ordinary course of business through the manufacturer's regular marketing channels if such sales are normally recognized as revenue in accordance with the realization principle for sales of products and if their costs are accounted for in accordance with generally accepted principles of inventory costing.
- Sales or supply contracts to provide goods from inventory or from homogeneous continuing production over a period of time.
- Contracts included in a program and accounted for under the program method of accounting. For accounting purposes, a program consists of a specified number of units of a basic product expected to be produced over a long period in a continuing production effort under a series of existing and anticipated contracts.³
- Service contracts of health clubs, correspondence schools, and similar consumer-oriented organizations that provide their services to their clients over an extended period.
- Magazine subscriptions.
- Contracts of nonprofit organizations to provide benefits to their members over a period of time in return for membership dues.

15. Contracts covered by this statement may be classified into four broad types based on methods of pricing: (a) fixed-price or lump-sum contracts, (b) cost-type (including cost-plus) contracts, (c) time-and-material contracts, and (d) unit-price contracts. A fixed-price contract is an agreement to perform all acts under the contract for a stated price. A cost-type contract is an agreement to perform under a contract for a price determined on the basis of a defined relationship to the costs to be incurred, for example, the

³The division is preparing a separate statement of position on program accounting, which will provide guidance on the circumstances in which existing and anticipated production-type contracts may be combined for the purpose of accumulating and allocating production costs.

costs of all acts required plus a fee, which may be a fixed amount or a fixed percentage of the costs incurred. A time-and-material contract is an agreement to perform all acts required under the contract for a price based on fixed hourly rates for some measure of the labor hours required (for example, direct labor hours) and the cost of materials. A unit-price contract is an agreement to perform all acts required under the contract for a specified price for each unit of output. Each of the various types of contracts may have incentive, penalty, or other provisions that modify their basic pricing terms. The pricing features of the various types are discussed in greater detail in Appendix B.

Definition of a Contractor

16. The term "contractor" as used in this statement refers to a person or entity that enters into a contract to construct facilities, produce goods, or render services to the specifications of a buyer either as a general or prime contractor, as a subcontractor to a general contractor, or as a construction manager.

Definition of a Profit Center

17. For the purpose of this statement, a "profit center" is the unit for the accumulation of revenues and costs and the measurement of income. For business enterprises engaged in the performance of contracts, the profit center for accounting purposes is usually a single contract; but under some specified circumstances it may be a combination of two or more contracts, a segment of a contract or of a group of combined contracts. This statement of position provides guidance on the selection of the appropriate profit center. The accounting recommendations, usually stated in terms of a single contract, also apply to alternative profit centers in circumstances in which alternative centers are appropriate.

Application and Effect on Existing Audit Guides and SOPs

18. This statement of position presents the division's recommendations on accounting for contracts (as specified in paragraphs 11 to 17) in all industries. The recommendations in this statement need not be applied to immaterial items. Two existing AICPA Industry Audit Guides, Audits of Construction Contractors and Audits of Government Contractors, provide additional guidance on the application of generally accepted accounting principles to the

construction industry and to government contracts, respectively. The recommendations in this statement take precedence in those areas. *Audits of Construction Contractors* is being revised concurrently with this statement to conform to its provisions.

- The guidance on contract accounting and financial reporting in Audits of Government Contractors is essentially consistent with the recommendations in this statement except that this statement recommends the cumulative catch-up method for accounting for changes in estimates under the percentage-of-completion method of accounting, whereas either the cumulative catch-up method or the reallocation method is acceptable under the guide. Therefore, Audits of Government Contractors is amended so that its guidance on accounting for changes in estimates conforms to the recommendations in this statement. Also, since the recommendations in this statement provide more comprehensive and explicit guidance on the application of generally accepted accounting principles to contract accounting than does the guide, Audits of Government Contractors, the guide is amended to incorporate this statement as an appendix. The provisions of that guide should be interpreted and applied in the context of the recommendations in this statement.
- 20. This statement is not intended to supersede recommendations on accounting in other AICPA industry accounting or audit guides or in other statements of position.

The Division's Conclusions

Determining a Basic Accounting Policy for Contracts

21. In accounting for contracts, the basic accounting policy decision is the choice between the two generally accepted methods: the percentage-of-completion method including units of delivery and the completed-contract method. The determination of which of the two methods is preferable should be based on a careful evaluation of circumstances because the two methods should not be acceptable alternatives for the same circumstances. The division's recommendations on basic accounting policy are set forth in the sections on "The Percentage-of-Completion Method" and "The Completed-Contract Method," which identify the circumstances

appropriate to the methods, the bases of applying the methods, and the reasons for the recommendations. The recommendations apply to accounting for individual contracts and to accounting for other profit centers in accordance with the recommendations in the section on "Determining the Profit Center." As a result of evaluating individual contracts and profit centers, a contractor should be able to establish a basic policy that should be followed in accounting for most of his contracts. In accordance with the requirements of APB Opinion 22, *Disclosure of Accounting Policies*, a contractor should disclose in the note to the financial statements on accounting policies the method or methods of determining earned revenue and the cost of earned revenue including the policies relating to combining and segmenting, if applicable. Appendix C contains a summary of the disclosure requirements in this statement.

The Percentage-of-Completion Method

This section sets forth the recommended basis for using the percentage-of-completion method and the reasons for the recommendation. Under most contracts for construction of facilities, production of goods, or provision of related services to a buyer's specifications, both the buyer and the seller (contractor) obtain enforceable rights. The legal right of the buyer to require specific performance of the contract means that the contractor has, in effect, agreed to sell his rights to work-in-progress as the work progresses. This view is consistent with the contractor's legal rights: he typically has no ownership claim to the work-in-progress but has lien rights. Furthermore, the contractor has the right to require the buyer, under most financing arrangements, to make progress payments to support his ownership investment and to approve the facilities constructed (or goods produced or services performed) to date if they meet the contract requirements. The buyer's right to take over the work-in-progress at his option (usually with a penalty) provides additional evidence to support that view. Accordingly, the business activity taking place supports the concept that in an economic sense performance is, in effect, a continuous sale (transfer of ownership rights) that occurs as the work progresses. Also under most contracts for the production of goods and the provision of related services that are accounted for on the basis of units delivered, both the contractor and the customer obtain enforceable rights as the goods are produced or the services are performed. As units are delivered, title to and the risk of loss on those units

normally transfer to the customer, whose acceptance of the items indicates that they meet the contractual specifications. For such contracts, delivery and acceptance are objective measurements of the extent to which the contracts have been performed. The percentage-of-completion method recognizes the legal and economic results of contract performance on a timely basis. Financial statements based on the percentage-of-completion method present the economic substance of a company's transactions and events more clearly and more timely than financial statements based on the completed-contract method, and they present more accurately the relationships between gross profit from contracts and related period costs. The percentage-of-completion method informs the users of the general purpose financial statements of the volume of economic activity of a company.

Circumstances Appropriate to the Method

- 23. The use of the percentage-of-completion method depends on the ability to make reasonably dependable estimates. For the purposes of this statement, "the ability to make reasonably dependable estimates" relates to estimates of the extent of progress toward completion, contract revenues, and contract costs. The division believes that the percentage-of-completion method is preferable as an accounting policy in circumstances in which reasonably dependable estimates can be made and in which all the following conditions exist:
- Contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
- The buyer can be expected to satisfy his obligations under the contract.
- The contractor can be expected to perform his contractual obligations.
- 24. For entities engaged on a continuing basis in the production and delivery of goods or services under contractual arrangements and for whom contracting represents a significant part of their operations, the presumption is that they have the ability to make estimates that are sufficiently dependable to justify the use of

the percentage-of-completion method of accounting.⁴ Persuasive evidence to the contrary is necessary to overcome that presumption. The ability to produce reasonably dependable estimates is an essential element of the contracting business. For a contract on which a loss is anticipated, generally accepted accounting principles require recognition of the entire anticipated loss as soon as the loss becomes evident. An entity without the ability to update and revise estimates continually with a degree of confidence could not meet that essential requirement of generally accepted accounting principles.

- 25. Accordingly, the division believes that entities with significant contracting operations generally have the ability to produce reasonably dependable estimates and that for such entities the percentage-of-completion method of accounting is preferable in most circumstances. The method should be applied to individual contracts or profit centers, as appropriate.
- a. Normally, a contractor will be able to estimate total contract revenue and total contract cost in single amounts. Those amounts should normally be used as the basis for accounting for contracts under the percentage-of-completion method.
- b. For some contracts, on which some level of profit is assured, a contractor may only be able to estimate total contract revenue and total contract cost in ranges of amounts. If, based on the information arising in estimating the ranges of amounts and all other pertinent data, the contractor can determine the amounts in the ranges that are most likely to occur, those amounts should be used in accounting for the contract under the percentage-of-completion method. If the most likely amounts cannot be determined, the lowest probable level of profit in the range should be used in accounting for the contract until the results can be estimated more precisely.
- c. However, in some circumstances, estimating the final outcome may be impractical except to assure that no loss will be incurred. In those circumstances, a contractor should use a zero estimate

The division recognizes that many contractors have informal estimating procedures that may result in poorly documented estimates and marginal quality field reporting and job costing systems. Those conditions may influence the ability of an entity to produce reasonably dependable estimates. However, procedures and systems should not influence the development of accounting principles and should be dealt with by management as internal control, financial reporting, and auditing concerns.

of profit; equal amounts of revenue and cost should be recognized until results can be estimated more precisely. A contractor should use this basis only if the bases in (a) or (b) are clearly not appropriate. A change from a zero estimate of profit to a more precise estimate should be accounted for as a change in an accounting estimate.

An entity using the percentage-of-completion method as its basic accounting policy should use the completed-contract method for a single contract or a group of contracts for which reasonably dependable estimates cannot be made or for which inherent hazards make estimates doubtful. Such a departure from the basic policy should be disclosed.

Nature of Reasonable Estimates and Inherent Hazards

- In practice, contract revenues and costs are estimated in a wide variety of ways ranging from rudimentary procedures to complex methods and systems. Regardless of the techniques used, a contractor's estimating procedures should provide reasonable assurance of a continuing ability to produce reasonably dependable estimates. 5 Ability to estimate covers more than the 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. Previous reliability of a contractor's estimating process is usually an indication of continuing reliability, particularly if the present circumstances are similar to those that prevailed in the past.
- 27. Estimating is an integral part of contractors' business activities, and there is a necessity to revise estimates on contracts continually as the work progresses. The fact that circumstances may necessitate frequent revision of estimates does not indicate that the estimates are unreliable for the purpose for which they are

⁵The type of estimating procedures appropriate in a particular set of circumstances depends on a careful evaluation of the costs and benefits of developing the procedures. The ability to produce reasonably dependable estimates that would justify the use of the percentage-of-completion method as recommended in paragraph 25 does not depend on the elaborateness of the estimating procedures used.

used. Although results may differ widely from original estimates because of the nature of the business, the contractor, in the conduct of his business, may still find the estimates reasonably dependable. Despite these widely recognized conditions, a contractor's estimates of total contract revenue and total contract costs should be regarded as reasonably dependable if the minimum total revenue and the maximum total cost can be estimated with a sufficient degree of confidence to justify the contractor's bids on contracts.

- 28. ARB 45 discourages the use of the percentage-of-completion method of accounting in circumstances in which inherent hazards make estimates doubtful. "Inherent hazards" relate to contract conditions or external factors that raise questions about contract estimates and about the ability of either the contractor or the customer to perform his obligations under the contract. Inherent hazards that may cause contract estimates to be doubtful usually differ from inherent business risks. Business enterprises engaged in contracting, like all business enterprises, are exposed to numerous business risks that vary from contract to contract. The reliability of the estimating process in contract accounting does not depend on the absence of such risks. Assessing business risks is a function of users of financial statements.
- 29. The present business environment and the refinement of the estimating process have produced conditions under which most business entities engaged in contracting can deal adequately with the normal, recurring business risks in estimating the outcome of contracts. The division believes that inherent hazards that make otherwise reasonably dependable contract estimates doubtful involve events and conditions that would not be considered in the ordinary preparation of contract estimates and that would not be expected to recur frequently, given the contractor's normal business environment. Such hazards are unrelated to, or only incidentally related to, the contractor's typical activities. Such hazards may relate, for example, to contracts whose validity is seriously in question (that is, which are less than fully enforceable), to contracts whose completion may be subject to the outcome of pending legislation or pending litigation, or to contracts exposed to the possibility of the condemnation or expropriation of the resulting properties. Reasonably dependable estimates cannot be produced for a contract with unrealistic or ill-defined terms or for a contract be-

tween unreliable parties. However, the conditions stated in paragraph 23 for the use of the percentage-of-completion method of accounting, which apply to most bona fide contracts, make the existence of some uncertainties, including some of the type described in ARB 45, paragraph 15, unlikely for contracts that meet those conditions. Therefore, the division believes that there should be specific, persuasive evidence of such hazards to indicate that use of the percentage-of-completion method on one of the bases in paragraph 25 is not preferable.

The Completed-Contract Method

This section sets forth the recommended basis for using the completed-contract method and the reasons for the recommendation. Under the completed-contract method, income is recognized only when a contract is completed or substantially completed. During the period of performance, billings and costs are accumulated on the balance sheet, but no profit or income is recorded before completion or substantial completion of the work. This method precludes reporting on the performance that is occurring under the enforceable rights of the contract as work progresses. Although the completed-contract method is based on results as finally determined rather than on estimates for unperformed work, which may involve unforeseen costs and possible losses, it does not reflect current performance when the period of a contract extends beyond one accounting period, and it therefore may result in irregular recognition of income. Financial statements based on this method may not show informative relationships between gross profit reported on contracts and related period costs.

Circumstances of Use

31. The completed-contract method may be used as an entity's basic accounting policy in circumstances in which financial position and results of operations would not vary materially from those resulting from use of the percentage-of-completion method (for example, in circumstances in which an entity has primarily short-term contracts). Although this statement does not formally distinguish on the basis of length between long-term and short-term contracts, the basis for recording income on contracts of short duration poses relatively few problems. In accounting for such contracts, income ordinarily is recognized when performance is substantially completed and accepted. Under those circumstances,

revenues and costs in the aggregate for all contracts would be expected to result in a matching of gross profit with period overhead or fixed costs similar to that achieved by use of the percentage-of-completion method. For example, the completedcontract method, as opposed to the percentage-of-completion method, would not usually produce a material difference in net income or financial position for a small plumbing contractor that performs primarily relatively short-term contracts during an accounting period; performance covers such a short span of time that the work is somewhat analogous to the manufacture of shelf production items for sale. An entity using the completed-contract method as its basic accounting policy should depart from that policy for a single contract or a group of contracts not having the features described in paragraph 31 and use the percentage-ofcompletion method on one of the bases described in paragraph 25. Such a departure should be disclosed.

- 32. The completed-contract method is preferable in circumstances in which estimates cannot meet the criteria for reasonable dependability discussed in the section on the percentage-of-completion method or in which there are inherent hazards of the nature of those discussed in that section. An entity using the percentage-of-completion method as its basic accounting policy should depart from that policy and use the completed-contract method for a single contract or a group of contracts only in the circumstances described in paragraph 25.
- 33. The use of the completed-contract method is recommended for the circumstances described in paragraphs 31 and 32. However, for circumstances in which there is an assurance that no loss will be incurred on a contract (for example, when the scope of the contract is ill-defined but the contractor is protected by a cost-plus contract or other contractual terms), the percentage-of-completion method based on a zero profit margin, rather than the completed-contract method, is recommended until more precise estimates can be made. The significant difference between the percentage-of-completion method applied on the basis of a zero profit margin and the completed-contract method relates to the effects on the income statement. Under the zero profit margin approach to applying the percentage-of-completion method, equal amounts of revenue and cost, measured on the basis of performance during the period, are presented in the income statement;

whereas, under the completed-contract method, performance for a period is not reflected in the income statement, and no amount is presented in the income statement until the contract is completed. The zero profit margin approach to applying the percentage-of-completion method gives users of general purpose financial statements an indication of the volume of a company's business and of the application of its economic resources.

Determining the Profit Center

34. The basic presumption should be that each contract is the profit center for revenue recognition, cost accumulation, and income measurement. That presumption may be overcome only if a contract or a series of contracts meets the conditions described for combining or segmenting contracts. A group of contracts (combining), and a phase or segment of a single contract or of a group of contracts (segmenting) may be used as a profit center in some circumstances. Since there are numerous practical implications of combining and segmenting contracts, evaluation of the circumstances, contract terms, and management intent are essential in determining contracts that may be accounted for on those bases.

Combining Contracts

- A group of contracts may be so closely related that they are, in effect, parts of a single project with an overall profit margin, and accounting for the contracts individually may not be feasible or appropriate. Under those circumstances, consideration should be given to combining such contracts for profit recognition purposes. The presumption in combining contracts is that revenue and profit are earned, and should be reported, uniformly over the performance of the combined contracts. For example, a group of construction-type contracts may be negotiated as a package with the objective of achieving an overall profit margin, although the profit margins on the individual contracts may vary. In those circumstances, if the individual contracts are performed and reported in different periods and accounted for separately, the reported profit margins in those periods will differ from the profit margin contemplated in the negotiations for reasons other than differences in performance.
- 36. Contracts may be combined for accounting purposes only if they meet the criteria in paragraphs 37 and 38.

- 37. A group of contracts may be combined for accounting purposes if the contracts
- a. Are negotiated as a package in the same economic environment with an overall profit margin objective. Contracts not executed at the same time may be considered to have been negotiated as a package in the same economic environment only if the time period between the commitments of the parties to the individual contracts is reasonably short. The longer the period between the commitments of the parties to the contracts, the more likely it is that the economic circumstances affecting the negotiations have changed.
- b. Constitute in essence an agreement to do a single project. A project for this purpose consists of construction, or related service activity with different elements, phases, or units of output that are closely interrelated or interdependent in terms of their design, technology, and function or their ultimate purpose or use.
- c. Require closely interrelated construction activities with substantial common costs that cannot be separately identified with, or reasonably allocated to, the elements, phases, or units of output.
- d. Are performed concurrently or in a continuous sequence under the same project management at the same location or at different locations in the same general vicinity.
- e. Constitute in substance an agreement with a single customer. In assessing whether the contracts meet this criterion, the facts and circumstances relating to the other criteria should be considered. In some circumstances different divisions of the same entity would not constitute a single customer if, for example, the negotiations are conducted independently with the different divisions. On the other hand, two or more parties may constitute in substance a single customer if, for example, the negotiations are conducted jointly with the parties to do what in essence is a single project.

Contracts that meet all of these criteria may be combined for profit recognition and for determining the need for a provision for losses in accordance with ARB 45, paragraph 6. The criteria should be applied consistently to contracts with similar characteristics in similar circumstances.

- 38. Production-type contracts that do not meet the criteria in paragraph 37 or segments of such contracts may be combined into groupings such as production lots or releases for the purpose of accumulating and allocating production costs to units produced or delivered on the basis of average unit costs in the following circumstances:⁶
- a. The contracts are with one or more customers for the production of substantially identical units of a basic item produced concurrently or sequentially.
- b. Revenue on the contracts is recognized on the units-of-delivery basis of applying the percentage-of-completion method.

Segmenting a Contract

- A single contract or a group of contracts that otherwise meet the test for combining may include several elements or phases, each of which the contractor negotiated separately with the same customer and agreed to perform without regard to the performance of the others. If those activities are accounted for as a single profit center, the reported income may differ from that contemplated in the negotiations for reasons other than differences in performance. If the project is segmented, revenues can be assigned to the different elements or phases to achieve different rates of profitability based on the relative value of each element or phase to the estimated total contract revenue. A project, which may consist of a single contract or a group of contracts, with segments that have different rates of profitability may be segmented if it meets the criteria in paragraph 40, paragraph 41, or paragraph 42. The criteria for segmenting should be applied consistently to contracts with similar characteristics and in similar circumstances.
- 40. A project may be segmented if all the following steps were taken and are documented and verifiable:
- a. The contractor submitted bona fide proposals on the separate components of the project and on the entire project.
- b. The customer had the right to accept the proposals on either basis.

⁶The division is preparing a separate statement of position on program accounting, which will provide guidance on the circumstances in which existing and anticipated production-type contracts may be combined for the purpose of accumulating and allocating production costs.

- c. The aggregate amount of the proposals on the separate components approximated the amount of the proposal on the entire project.
- 41. A project that does not meet the criteria in paragraph 40 may be segmented only if it meets all the following criteria:
- a. The terms and scope of the contract or project clearly call for separable phases or elements.
- b. The separable phases or elements of the project are often bid or negotiated separately.
- c. The market assigns different gross profit rates to the segments because of factors such as different levels of risk or differences in the relationship of the supply and demand for the services provided in different segments.
- d. The contractor has a significant history of providing similar services to other customers under separate contracts for each significant segment to which a profit margin higher than the overall profit margin on the project is ascribed.⁷
- e. The significant history with customers who have contracted for services separately is one that is relatively stable in terms of pricing policy rather than one unduly weighted by erratic pricing decisions (responding, for example, to extraordinary economic circumstances or to unique customer-contractor relationships).
- f. The excess of the sum of the prices of the separate elements over the price of the total project is clearly attributable to cost savings incident to combined performance of the contract obligations (for example, cost savings in supervision, overhead, or equipment mobilization). Unless this condition is met, segmenting a contract with a price substantially less than the sum of the prices of the separate phases or elements would be inappropriate even if the other conditions are met. Acceptable price variations should be allocated to the separate phases or elements in proportion to the prices ascribed to each. In all other situations a substantial difference in price (whether more or less) between

 $^{^{7}}$ In applying the criterion in paragraph 41(d), values assignable to the segments should be on the basis of the contractor's normal historical prices and terms of such services to other customers. The division considered but rejected the concept of allowing a contractor to segment on the basis of prices charged by other contractors, since it does not follow that those prices could have been obtained by a contractor who has no history in the market.

- the separate elements and the price of the total project is evidence that the contractor has accepted different profit margins. Accordingly, segmenting is not appropriate, and the contracts should be the profit centers.
- g. The similarity of services and prices in the contract segments and services and the prices of such services to other customers contracted separately should be documented and verifiable.
- 42. A production-type contract that does not meet the criteria in paragraphs 40 or 41 may also be segmented and included in groupings such as production lots or releases for the purpose of accumulating and allocating production costs to units produced or delivered on the basis of average unit cost under the conditions specified in paragraph 38.

Measuring Progress on Contracts

43. This section describes methods of measuring the extent of progress toward completion under the percentage-of-completion method and sets forth criteria for selecting those methods and for determining when a contract is substantially completed. Meaningful measurement of the extent of progress toward completion is essential since this factor is used in determining the amounts of estimated contract revenue and estimated gross profit that will be recognized as earned in any given period.

Methods of Measuring Extent of Progress Toward Completion

44. In practice, a number of methods are used to measure the extent of progress toward completion. They include the cost-to-cost method, variations of the cost-to-cost method, efforts-expended methods, the units-of-delivery method, and the units-of-work-performed method. Those practices are intended to conform to ARB 45, paragraph 4.8 Some of the measures are sometimes made and certified by engineers or architects, but manage-

⁸ARB 45, paragraph 4, states:

The committee recommends that the recognized income [under the percentage-of-completion method] be that percentage of estimated total income, either:

⁽a) that incurred costs to date bear to estimated total costs after giving effect to estimates of costs to complete based upon most recent information, or

⁽b) that may be indicated by such other measure of progress toward completion as may be appropriate having due regard to work performed.

Costs as here used might exclude, especially during the early stages of a contract, all or a portion of the cost of such items as materials and subcontracts if it appears that such an exclusion would result in a more meaningful periodic allocation of income.

ment should review and understand the procedures used by those professionals.

45. Some methods used in practice measure progress toward completion in terms of costs, some in terms of units of work, and some in terms of values added (the contract value of total work performed to date). All three of these measures of progress are acceptable in appropriate circumstances. The division concluded that other methods that achieve the objective of measuring extent of progress toward completion in terms of costs, units, or value added are also acceptable in appropriate circumstances. However, the method or methods selected should be applied consistently to all contracts having similar characteristics. The method or methods of measuring extent of progress toward completion should be disclosed in the notes to the financial statements. Examples of circumstances not appropriate to some methods are given within the discussion of input and output measures.

Input and Output Measures

- 46. The several approaches to measuring progress on a contract can be grouped into input and output measures. Input measures are made in terms of efforts devoted to a contract. They include the methods based on costs and on efforts expended. Output measures are made in terms of results achieved. They include methods based on units produced, units delivered, contract milestones, and value added. For contracts under which separate units of output are produced, progress can be measured on the basis of units of work completed. In other circumstances, progress may be measured, for example, on the basis of cubic yards of excavation for foundation contracts or on the basis of cubic yards of pavement laid for highway contracts.
- 47. Both input and output measures have drawbacks in some circumstances. Input is used to measure progress toward completion indirectly, based on an established or assumed relationship between a unit of input and productivity. A significant drawback of input measures is that the relationship of the measures to productivity may not hold, because of inefficiencies or other factors. Output is used to measure results directly and is generally the best measure of progress toward completion in circumstances in which a reliable measure of output can be established. However, output

measures often cannot be established, and input measures must then be used. The use of either type of measure requires the exercise of judgment and the careful tailoring of the measure to the circumstances.

- 48. The efforts-expended method is an input method based on a measure of the work, such as labor hours, labor dollars, machine hours, or material quantities. Under the labor-hours method, for example, extent of progress is measured by the ratio of hours performed to date to estimated total hours at completion. Estimated total labor hours should include (a) the estimated labor hours of the contractor and (b) the estimated labor hours of subcontractors are a significant element in the performance of the contract. A labor-hours method can measure the extent of progress in terms of efforts expended only if substantial efforts of subcontractors are included in the computation. If the contractor is unable to obtain reasonably dependable estimates of subcontractors' labor hours at the beginning of the project and as work progresses, he should not use the labor-hours method.
- 49. The various forms of the efforts-expended method generally are based on the assumption that profits on contracts are derived from the contractor's efforts in all phases of operations, such as designing, procurement, and management. Profit is not assumed to accrue merely as a result of the acquisition of material or other tangible items used in the performance of the contract or the awarding of subcontracts. As previously noted, a significant drawback of efforts-expended methods is that the efforts included in the measure may not all be productive.
- 50. Measuring progress toward completion based on the ratio of costs incurred to total estimated costs is also an input method. Some of the costs incurred, particularly in the early stages of the contract, should be disregarded in applying this method because they do not relate to contract performance. These include the costs of items such as uninstalled materials not specifically produced or fabricated for the project or of subcontracts that have not been performed. For example, for construction projects, the cost of materials not unique to the project that have been purchased or ac-

cumulated at job sites but that have not been physically installed do not relate to performance.9 The costs of such materials should be excluded from costs incurred for the purpose of measuring the extent of progress toward completion. Also, the cost of equipment purchased for use on a contract should be allocated over the period of its expected use unless title to the equipment is transferred to the customer by terms of the contract. For production-type contracts, the complement of expensive components (for example, computers, engines, radars, and complex "black boxes") to be installed into the deliverable items may aggregate a significant portion of the total cost of the contract. In some circumstances, the costs incurred for such components, even though the components were specifically purchased for the project, should not be included in the measurement before the components are installed if inclusion would tend to overstate the percentage of completion otherwise determinable.

51. The acceptability of the results of input or output measures deemed to be appropriate to the circumstances should be periodically reviewed and confirmed by alternative measures that involve observation and inspection. For example, the results provided by the measure used to determine the extent of progress may be compared to the results of calculations based on physical observations by engineers, architects, or similarly qualified personnel. That type of review provides assurance somewhat similar to that provided for perpetual inventory records by periodic physical inventory counts.

Completion Criteria Under the Completed-Contract Method

52. As a general rule, a contract may be regarded as substantially completed if remaining costs and potential risks are insignificant in amount. The overriding objectives are to maintain consistency in determining when contracts are substantially completed and to avoid arbitrary acceleration or deferral of income. The specific criteria used to determine when a contract is substantially completed should be followed consistently and should be disclosed in the note to the financial statements on accounting policies. Circumstances to be considered in determining when a project is

The cost of uninstalled materials specifically produced, fabricated, or constructed for a project should be included in the costs used to measure extent of progress. Such materials consist of items unique to a project that a manufacturer or supplier does not carry in inventory and that must be produced or altered to meet the specifications of the project.

substantially completed include, for example, delivery of the product, acceptance by the customer, departure from the site, and compliance with performance specifications.

Income Determination—Revenue Elements

- 53. Estimating the revenue on a contract is an involved process, which is affected by a variety of uncertainties that depend on the outcome of a series of future events. The estimates must be periodically revised throughout the life of the contract as events occur and as uncertainties are resolved.
- 54. The major factors that must be considered in determining total estimated revenue include the basic contract price, contract options, change orders, claims, and contract provisions for penalties and incentive payments, including award fees and performance incentives. All those factors and other special contract provisions must be evaluated throughout the life of a contract in estimating total contract revenue to recognize revenues in the periods in which they are earned under the percentage-of-completion method of accounting.

Basic Contract Price—General

- 55. The estimated revenue from a contract is the total amount that a contractor expects to realize from the contract. It is determined primarily by the terms of the contract and the basic contract price. Contract price may be relatively fixed or highly variable and subject to a great deal of uncertainty, depending on the type of contract involved. Appendix B describes basic contract types and major variations in the basic types. The total amount of revenue that ultimately will be realized on a contract is often subject to a variety of changing circumstances and accordingly may not be known with certainty until the parties to the contract have fully performed their obligations. Thus, the determination of total estimated revenue requires careful consideration and the exercise of judgment in assessing the probabilities of future outcomes.
- 56. Although fixed-price contracts usually provide for a stated contract price, a specified scope of the work to be performed, and a specified performance schedule, they sometimes have adjustment schedules based on application of economic price adjustment (esca-

lation), price redetermination, incentive, penalty, and other pricing provisions. Determining contract revenue under unit-price contracts generally involves the same factors as under fixed-price contracts. Determining contract revenue from a time-and-material contract requires a careful analysis of the contract, particularly if the contract includes guaranteed maximums or assigns markups to both labor and materials; and the determination involves consideration of some of the factors discussed below in regard to cost-type contracts.

Basic Contract Price—Cost-Type Contracts

- 57. Cost-type contracts have a variety of forms (see Appendix B). The various forms have differing contract terms that affect accounting, such as provisions for reimbursable costs (which are generally spelled out in the contract), overhead recovery percentages, and fees. A fee may be a fixed amount or a percentage of reimbursable costs or an amount based on performance criteria. Generally, percentage fees may be accrued as the related costs are incurred, since they are a percentage of costs incurred, and profits should therefore be recognized as costs are incurred. Cost-type contracts often include provisions for guaranteed maximum total reimbursable costs or target penalties and rewards relating to underruns and overruns of predetermined target prices, completion dates, plant capacity on completion of the project, or other criteria.
- 58. One problem peculiar to cost-type contracts involves the determination of the amounts of reimbursable costs that should be reflected as revenue. Under some contracts, particularly service-type contracts, a contractor acts solely in the capacity of an agent (construction manager) and has no risks associated with costs managed. This relationship may arise, for example, if an owner awards a construction management contract to one entity and a construction contract to another. If the contractor, serving as the construction manager, acts solely as an agent, his revenue should include only the fee and should exclude subcontracts negotiated or managed on behalf of the owner and materials purchased on behalf of the owner.
 - 59. In other circumstances, a contractor acts as an ordinary

¹⁰Cost-type government contracts with fees based on a percentage of cost are no longer granted under government regulations.

principal under a cost-type contract. For example, the contractor may be responsible to employees for salaries and wages and to subcontractors and other creditors for materials and services, and he may have the discretionary responsibility to procure and manage the resources in performing the contract. The contractor should include in revenue all reimbursable costs for which he has risk or on which his fee was based at the time of bid or negotiation. In addition, revenue from overhead percentage recoveries and the earned fee should be included in revenue.

Customer-Furnished Materials

Another concern associated with measuring revenue relates to materials furnished by a customer or purchased by the contractor as an agent for the customer. Often, particularly for large, complex projects, customers may be more capable of carrying out the procurement function or may have more leverage with suppliers than the contractor. In those circumstances, the contractor generally informs the customer of the nature, type, and characteristics or specifications of the materials required and may even purchase the required materials and pay for them, using customer purchase orders and checks drawn against the customer's bank account. If the contractor is responsible for the nature, type, characteristics, or specifications of material that the customer furnishes or that the contractor purchases as an agent of the customer, or if the contractor is responsible for the ultimate acceptability of performance of the project based on such material, the value of those items should be included as contract price and reflected as revenue and costs in periodic reporting of operations. As a general rule, revenues and costs should include all items for which the contractor has an associated risk, including items on which his contractual fee was based.

Change Orders

61. Change orders are modifications of an original contract that effectively change the provisions of the contract without adding new provisions. They may be initiated by either the contractor or the customer, and they include changes in specifications or design, method or manner of performance, facilities, equipment, materials, site, and period for completion of the work. Many change orders are unpriced; that is, the work to be performed is defined, but the adjustment to the contract price is to be negotiated later. For some change orders, both scope and price may be unapproved

or in dispute. Accounting for change orders depends on the underlying circumstances, which may differ for each change order depending on the customer, the contract, and the nature of the change. Change orders should therefore be evaluated according to their characteristics and the circumstances in which they occur. In some circumstances, change orders as a normal element of a contract may be numerous, and separate identification may be impractical. Such change orders may be evaluated statistically on a composite basis using historical results as modified by current conditions. If such change orders are considered by the parties to be a normal element within the original scope of the contract, no change in the contract price is required. Otherwise, the adjustment to the contract price may be routinely negotiated. Contract revenue and costs should be adjusted to reflect change orders approved by the customer and the contractor regarding both scope and price.

- Accounting for unpriced change orders depends on their characteristics and the circumstances in which they occur. Under the completed-contract method, costs attributable to unpriced change orders should be deferred as contract costs if it is probable that aggregate contract costs, including costs attributable to change orders, will be recovered from contract revenues. For all unpriced change orders, recovery should be deemed probable if the future event or events necessary for recovery are likely to occur. Some of the factors to consider in evaluating whether recovery is probable are the customer's written approval of the scope of the change order, separate documentation for change order costs that are identifiable and reasonable, and the entity's favorable experience in negotiating change orders, especially as it relates to the specific type of contract and change order being evaluated. The following guidelines should be followed in accounting for unpriced change orders under the percentage-of-completion method.
- a. Costs attributable to unpriced change orders should be treated as costs of contract performance in the period in which the costs are incurred if it is *not* probable that the costs will be recovered through a change in the contract price.
- b. If it is probable that the costs will be recovered through a change in the contract price, the costs should be deferred (excluded from the cost of contract performance) until the parties have agreed on the change in contract price, or, alternatively, they

- should be treated as costs of contract performance in the period in which they are incurred, and contract revenue should be recognized to the extent of the costs incurred.
- c. If it is probable that the contract price will be adjusted by an amount that exceeds the costs attributable to the change order and the amount of the excess can be reliably estimated, the original contract price should also be adjusted for that amount when the costs are recognized as costs of contract performance if its realization is probable. However, since the substantiation of the amount of future revenue is difficult, revenue in excess of the costs attributable to unpriced change orders should only be recorded in circumstances in which realization is assured beyond a reasonable doubt, such as circumstances in which an entity's historical experience provides such assurance or in which an entity has received a bona fide pricing offer from a customer and records only the amount of the offer as revenue.
- 63. If change orders are in dispute or are unapproved in regard to both scope and price, they should be evaluated as claims (see paragraphs 65 to 67).

Contract Options and Additions

- 64. An option or an addition to an existing contract should be treated as a separate contract in any of the following circumstances:
- a. The product or service to be provided differs significantly from the product or service provided under the original contract.
- b. The price of the new product or service is negotiated without regard to the original contract and involves different economic judgments.
- c. The products or services to be provided under the exercised option or amendment are similar to those under the original contract, but the contract price and anticipated contract cost relationship are significantly different.

However, even if the separate contract does not meet any of these conditions, it may be combined with the original contract if the contracts meet the criteria in paragraph 37 or 38. Exercised options or additions that do not meet the criteria for treatment as separate contracts or as separate contracts combined with the original contracts should be treated as change orders on the original contracts.

Claims

- 65. Claims are amounts in excess of the agreed contract price (or amounts not included in the original contract price) that a contractor seeks to collect from customers or others for customercaused delays, errors in specifications and designs, contract terminations, change orders in dispute or unapproved as to both scope and price, or other causes of unanticipated additional costs. Recognition of amounts of additional contract revenue relating to claims is appropriate only if it is probable that the claim will result in additional contract revenue and if the amount can be reliably estimated. Those two requirements are satisfied by the existence of all the following conditions:
- a. The contract or other evidence provides a legal basis for the claim; or a legal opinion has been obtained, stating that under the circumstances there is a reasonable basis to support the claim.
- b. Additional costs are caused by circumstances that were unforeseen at the contract date and are not the result of deficiencies in the contractor's performance.
- c. Costs associated with the claim are identifiable or otherwise determinable and are reasonable in view of the work performed.
- d. The evidence supporting the claim is objective and verifiable, not based on management's "feel" for the situation or on unsupported representations.

If the foregoing requirements are met, revenue from a claim should be recorded only to the extent that contract costs relating to the claim have been incurred. The amounts recorded, if material, should be disclosed in the notes to the financial statements. Costs attributable to claims should be treated as costs of contract performance as incurred.

- 66. However, a practice such as recording revenues from claims only when the amounts have been received or awarded may be used. If that practice is followed, the amounts should be disclosed in the notes to the financial statements.
- 67. If the requirements in paragraph 65 are not met or if those requirements are met but the claim exceeds the recorded contract costs, a contingent asset should be disclosed in accordance with FASB Statement no. 5, paragraph 17.

Income Determination—Cost Elements

Contract costs must be identified, estimated, and accumulated with a reasonable degree of accuracy in determining income earned. At any time during the life of a contract, total estimated contract cost consists of two components: costs incurred to date and estimated cost to complete the contract. A company should be able to determine costs incurred on a contract with a relatively high degree of precision, depending on the adequacy and effectiveness of its cost accounting system. The procedures or systems used in accounting for costs vary from relatively simple, manual procedures that produce relatively modest amounts of detailed analysis to sophisticated, computer-based systems that produce a great deal of detailed analysis. Despite the diversity of systems and procedures, however, an objective of each system or of each set of procedures should be to accumulate costs properly and consistently by contract with a sufficient degree of accuracy to assure a basis for the satisfactory measurement of earnings.

Contract Costs

- 69. Contract costs are accumulated in the same manner as inventory costs and are charged to operations as the related revenue from contracts is recognized. Contract costs generally include all direct costs, such as materials, direct labor, and subcontracts, and indirect costs identifiable with or allocable to the contracts. However, practice varies for certain types of indirect costs considered allocable to contracts, for example, support costs (such as central preparation and processing of job payrolls, billing and collection costs, and bidding and estimating costs).
- 70. Authoritative accounting pronouncements require costs to be considered period costs if they cannot be clearly related to production, either directly or by an allocation based on their discernible future benefits.
- 71. Income is recognized over the term of the contract under the percentage-of-completion method or is recognized as units are delivered under the units-of-delivery modification and is deferred until performance is substantially complete under the completed-contract method. None of the characteristics peculiar to those methods, however, require accounting for contract costs to deviate in principle from the basic framework established in existing authoritative literature applicable to inventories or business enterprises in general.

- 72. A contracting entity should apply the following general principles in accounting for costs of construction-type and those production-type contracts covered by this statement. The principles are consistent with generally accepted accounting principles for inventory and production costs in other areas, and their application requires the exercise of judgment.
- a. All direct costs, such as material, labor, and subcontracting costs, should be included in contract costs.
- b. Indirect costs allocable to contracts include the costs of indirect labor, contract supervision, tools and equipment, supplies, quality control and inspection, insurance, repairs and maintenance, depreciation and amortization, and, in some circumstances, support costs, such as central preparation and processing of payrolls. For government contractors, other types of costs that are allowable or allocable under pertinent government contract regulations may be allocated to contracts as indirect costs if otherwise allowable under GAAP.¹¹ Methods of allocating indirect costs should be systematic and rational. They include, for example, allocations based on direct labor costs, direct labor hours, or a combination of direct labor and material costs. The appropriateness of allocations of indirect costs and of the methods of allocation depend on the circumstances and involve judgment.
- c. General and administrative costs ordinarily should be charged to expense as incurred but may be accounted for as contract costs under the completed-contract method of accounting¹² or, in some circumstances, as indirect contract costs by government contractors.¹³

¹¹The AICPA industry audit guide, *Audits of Government Contractors*, states, "Practice varies among government contractors as to the extent to which costs are included in inventory. Some contractors include all direct costs and only certain indirect costs. . . . Other contractors record in inventory accounts all costs identified with the contract including allocated general and administrative . . . expenses." The guide points out that many accountants believe that the practice of allocating general and administrative expenses to contract costs, which is permitted under the completed-contract method by ARB 45, paragraph 10, may appropriately be extended to government contracts because they believe that "all costs under the contract are directly associated with the contract revenue, and both should be recognized in the same period."

¹²Paragraph 10 of ARB 45, Long-Term Construction-Type Contracts, states When the completed-contract method is used, it may be appropriate to allocate general and administrative expenses to contract costs rather than to periodic income. This may result in a better matching of costs and revenues than would result from treating such expenses as period cost, particularly in years when no contracts were completed.

¹³See the discussion of the AICPA industry audit guide, Audits of Government Contractors, in footnote 11.

- d. Selling costs should be excluded from contract costs and charged to expense as incurred unless they meet the criteria for precontract costs in paragraph 75.
- e. Costs under cost-type contracts should be charged to contract costs in conformity with generally accepted accounting principles in the same manner as costs under other types of contracts because unrealistic profit margins may result in circumstances in which reimbursable cost accumulations omit substantial contract costs (with a resulting larger fee) or include substantial unallocable general and administrative costs (with a resulting smaller fee).
- f. In computing estimated gross profit or providing for losses on contracts, estimates of cost to complete should reflect all of the types of costs included in contract costs.
- g. Inventoriable costs should not be carried at amounts that when added to the estimated cost to complete are greater than the estimated realizable value of the related contracts.

Interest costs should be accounted for in accordance with FASB Statement no. 34, Capitalization of Interest Cost.

Precontract Costs

- 73. In practice, costs are deferred in anticipation of future contract sales in a variety of circumstances. The costs may consist of (a) costs incurred in anticipation of a specific contract that will result in no future benefit unless the contract is obtained (such as the costs of mobilization, engineering, architectural, or other services incurred on the basis of commitments or other indications of interest in negotiating a contract), (b) costs incurred for assets to be used in connection with specific anticipated contracts (for example, costs for the purchase of production equipment, materials, or supplies), (c) costs incurred to acquire or produce goods in excess of the amounts required under a contract in anticipation of future orders for the same item, and (d) learning, start-up, or mobilization costs incurred for anticipated but unidentified contracts.
- 74. Learning or start-up costs are sometimes incurred in connection with the performance of a contract or a group of contracts. In some circumstances, follow-on or future contracts for the same goods or services are anticipated. Such costs usually consist of labor, overhead, rework, or other special costs that must be in-

curred to complete the existing contract or contracts in progress and are distinguished from research and development costs. ¹⁴ A direct relationship between such costs and the anticipated future contracts is often difficult to establish, and the receipt of future contracts often cannot reasonably be anticipated.

- 75. The division recommends the following accounting for precontract costs:
- a. Costs that are incurred for a specific anticipated contract and that will result in no future benefits unless the contract is obtained should not be included in contract costs or inventory before the receipt of the contract. However, such costs may be otherwise deferred, subject to evaluation of their probable recoverability, but only if the costs can be directly associated with a specific anticipated contract and if their recoverability from that contract is probable.
- b. Costs incurred for assets, such as costs for the purchase of materials, production equipment, or supplies, that are expected to be used in connection with anticipated contracts may be deferred outside the contract cost or inventory classification if their recovery from future contract revenue or from other dispositions of the assets is probable.
- c. Costs incurred to acquire or produce goods in excess of the amounts required for an existing contract in anticipation of future orders for the same items may be treated as inventory if their recovery is probable.
- d. Learning or start-up costs incurred in connection with existing contracts and in anticipation of follow-on or future contracts for the same goods or services should be charged to existing contracts.¹⁵
- e. Costs appropriately deferred in anticipation of a contract should be included in contract costs on the receipt of the anticipated contract.
- f. Costs related to anticipated contracts that are charged to expenses as incurred because their recovery is not considered

¹⁴Statement of Financial Accounting Standards no. 2, Accounting for Research and Development Costs, requires that research and development costs be charged to expense when incurred.

¹⁵See footnote 3, which indicates that the division is preparing a statement of position on program accounting for consideration by the FASB.

probable should not be reinstated by a credit to income on the subsequent receipt of the contract.

Cost Adjustments Arising from Back Charges

- 76. Back charges are billings for work performed or costs incurred by one party that, in accordance with the agreement, should have been performed or incurred by the party to whom billed. These frequently are disputed items. For example, owners bill back charges to general contractors, and general contractors bill back charges to subcontractors. Examples of back charges include charges for cleanup work and charges for a subcontractor's use of a general contractor's equipment.
- 77. A common practice is to net back charges in the estimating process. The division recommends the following procedures in accounting for back charges:
- Back charges to others should be recorded as receivables and, to the extent considered collectible, should be applied to reduce contract costs. However, if the billed party disputes the propriety or amount of the charge, the back charge is in effect a claim, and the criteria for recording claims apply.
- Back charges from others should be recorded as payables and as additional contract costs to the extent that it is probable that the amounts will be paid.

Estimated Cost to Complete

- 78. The estimated cost to complete, the other component of total estimated contract cost, is a significant variable in the process of determining income earned and is thus a significant factor in accounting for contracts. The latest estimate may be determined in a variety of ways and may be the same as the original estimate. Practices in estimating total contract costs vary, and guidance is needed in this area because of the impact of those practices on accounting. The following practices should be followed:
- a. Systematic and consistent procedures that are correlated with the cost accounting system should be used to provide a basis for periodically comparing actual and estimated costs.
- b. In estimating total contract costs, the quantities and prices of all significant elements of cost should be identified.

- c. The estimating procedures should provide that estimated cost to complete includes the same elements of cost that are included in actual accumulated costs; also, those elements should reflect expected price increases.
- d. The effects of future wage and price escalations should be taken into account in cost estimates, especially when the contract performance will be carried out over a significant period of time. Escalation provisions should not be blanket overall provisions but should cover labor, materials, and indirect costs based on percentages or amounts that take into consideration experience and other pertinent data.
- e. Estimates of cost to complete should be reviewed periodically and revised as appropriate to reflect new information.

Computation of Income Earned for a Period Under the Percentage-of-Completion Method

79. Total estimated gross profit on a contract, the difference between total estimated contract revenue and total estimated contract cost, must be determined before the amount earned on the contract for a period can be determined. The portion of total revenue earned or the total amount of gross profit earned to date is determined by the measurement of the extent of progress toward completion using one of the methods discussed in paragraphs 44 to 51 of this statement. The computation of income earned for a period involves a determination of the portion of total estimated contract revenue that has been earned to date (earned revenue) and the portion of total estimated contract cost related to that revenue (cost of earned revenue). Two different approaches to determining earned revenue and cost of earned revenue are widely used in practice. Either of the alternative approaches may be used on a consistent basis. ¹⁶

Alternative A

80. The advocates of this method believe that the portion of total estimated contract revenue earned to date should be determined by the measurement of the extent of progress toward completion and that, in accordance with the matching concept, the

¹⁶The use of Alternative A in the discussion and in the presentation of some of the provisions of this statement is for convenience and consistency and is not intended to imply that Alternative A is the preferred approach.

measurement of extent of progress toward completion should also be used to allocate a portion of total estimated contract cost to the revenue recognized for the period. They believe that this procedure results in reporting earned revenue, cost of earned revenue, and gross profit consistent with the measurement of contract performance. Moreover, they believe that, if there are no changes in estimates during the performance of a contract, the procedure also results in a consistent gross profit percentage from period to period. However, they recognize that a consistent gross profit percentage is rarely obtained in practice because of the need to be responsive in the accounting process to changes in estimates of contract revenues, costs, earned revenue, and gross profits. In accordance with this procedure, earned revenue, cost of earned revenue, and gross profit should be determined as follows:

- a. Earned Revenue to date should be computed by multiplying total estimated contract revenue by the percentage of completion (as determined by one of the acceptable methods of measuring the extent of progress toward completion). The excess of the amount over the earned revenue reported in prior periods is the earned revenue that should be recognized in the income statement for the current period.
- b. Cost of Earned Revenue for the period should be computed in a similar manner. Cost of earned revenue to date should be computed by multiplying total estimated contract cost by the percentage of completion on the contract. The excess of that amount over the cost of earned revenue reported in prior periods is the cost of earned revenue that should be recognized in the income statement for the current period. The difference between total cost incurred to date and cost of earned revenue to date should be reported on the balance sheet.
- c. Gross Profit on a contract for a period is the excess of earned revenue over the cost of earned revenue.

Alternative B

81. The advocates of this method believe that the measurement of the extent of progress toward completion should be used to determine the amount of gross profit earned to date and that the earned revenue to date is the sum of the total cost incurred on the contract and the amount of gross profit earned. They believe that the cost of work performed on a contract for a period, including

materials, labor, subcontractors, and other costs, should be the cost of earned revenue for the period. They believe that the amount of costs incurred can be objectively determined, does not depend on estimates, and should be the amount that enters into the accounting determination of income earned. They recognize that, under the procedure that they advocate, gross profit percentages will vary from period to period unless the cost-to-cost method is used to measure the extent of progress toward completion. However, they believe that varying profit percentages are consistent with the existing authoritative literature when costs incurred do not provide an appropriate measure of the extent of progress toward completion. In accordance with Alternative B, earned revenue, cost of earned revenue, and gross profit are determined as follows:

- a. Earned Revenue is the amount of gross profit earned on a contract for a period plus the costs incurred on the contract during the period.
- b. Cost of Earned Revenue is the cost incurred during the period, excluding the cost of materials not unique to a contract that have not been used for the contract and costs incurred for subcontracted work that is still to be performed.
- c. Gross Profit earned on a contract should be computed by multiplying the total estimated gross profit on the contract by the percentage of completion (as determined by one of the acceptable methods of measuring extent of progress toward completion). The excess of that amount over the amount of gross profit reported in prior periods is the earned gross profit that should be recognized in the income statement for the current period.

Revised Estimates

82. Adjustments to the original estimates of the total contract revenue, total contract cost, or extent of progress toward completion are often required as work progresses under the contract and as experience is gained, even though the scope of the work required under the contract may not change. The nature of accounting for contracts is such that refinements of the estimating process for changing conditions and new developments are continuous and characteristic of the process. Additional information that enhances and refines the estimating process is often obtained after the balance sheet date but before the issuance of the financial statements;

such information should result in an adjustment of the unissued financial statements. Events occurring after the date of the financial statements that are outside the normal exposure and risk aspects of the contract should not be considered refinements of the estimating process of the prior year but should be disclosed as subsequent events.

- 83. Revisions in revenue, cost, and profit estimates or in measurements of the extent of progress toward completion are changes in accounting estimates as defined in APB Opinion 20, Accounting Changes. ¹⁷ That opinion has been interpreted to permit the following two alternative methods of accounting for changes in accounting estimates:
- Cumulative Catch-up. Account for the change in estimate in the period of change so that the balance sheet at the end of the period of change and the accounting in subsequent periods are as they would have been if the revised estimate had been the original estimate.
- Reallocation. Account for the effect of the change ratably over the period of change in estimate and subsequent periods.

Although both methods are used in practice to account for changes in estimates of total revenue, total costs, or extent of progress under the percentage-of-completion method, the cumulative catch-up method is more widely used. Accordingly, to narrow the areas of differences in practice, such changes should be accounted for by the cumulative catch-up method.

84. Although estimating is a continuous and normal process for contractors, the second sentence of APB Opinion 20, paragraph 33, recommends disclosure of the effect of significant revisions if the effect is material.¹⁸

¹⁷Paragraph 31 of APB Opinion 20, Accounting Changes, requires that "the effect of a change in accounting estimate should be accounted for in (a) the period of change if the change affects that period only or (b) the period of change and future periods if the change affects both."

¹⁸APB Opinion 20, paragraph 33, states,

The effect on income before extraordinary items, net income and related per share amounts of the current period should be disclosed for a change in estimate that affects several future periods, such as a change in service lives of depreciable assets or actuarial assumptions affecting pension costs. Disclosure of the effect on those income statement amounts is not necessary for estimates made each period in the ordinary course of accounting for items such as uncollectible accounts or inventory obsolescence; however, disclosure is recommended if the effect of a change in the estimate is material.

Provisions for Anticipated Losses on Contracts

- 85. When the current estimates of total contract revenue and contract cost indicate a loss, a provision for the entire loss on the contract should be made. Provisions for losses should be made in the period in which they become evident under either the percentage-of-completion method or the completed-contract method. If a group of contracts are combined based on the criteria in paragraph 37 or 38, they should be treated as a unit in determining the necessity for a provision for a loss. If contracts are segmented based on the criteria in paragraph 40, 41, or 42 of this statement, the individual segments should be considered separately in determining the need for a provision for a loss.
- 86. Losses on cost-type contracts, although less frequent, may arise if, for example, a contract provides for guaranteed maximum reimbursable costs or target penalties. In recognizing losses for accounting purposes, the contractor's normal cost accounting methods should be used in determining the total cost overrun on the contract, and losses should include provisions for performance penalties.
- 87. The costs used in arriving at the estimated loss on a contract should include all costs of the type allocable to contracts under paragraph 72 of this statement. Other factors that should be considered in arriving at the projected loss on a contract include target penalties and rewards, nonreimbursable costs on cost-plus contracts, change orders, and potential price redeterminations. In circumstances in which general and administrative expenses are treated as contract costs under the completed-contract method of accounting, the estimated loss should include the same types of general and administrative expenses.
- 88. The provision for loss arises because estimated cost for the contract exceeds estimated revenue. Consequently, the provision for loss should be accounted for in the income statement as an additional contract cost rather than as a reduction of contract revenue, which is a function of contract price, not cost. Unless the provision is material in amount or unusual or infrequent in nature, the provision should be included in contract cost and need not be shown separately in the income statement. If it is shown separately, it should be shown as a component of the cost included in the computation of gross profit.

89. Provisions for losses on contracts should be shown separately as liabilities on the balance sheet, if significant, except in circumstances in which related costs are accumulated on the balance sheet, in which case the provisions may be deducted from the related accumulated costs. In a classified balance sheet, a provision shown as a liability should be shown as a current liability.

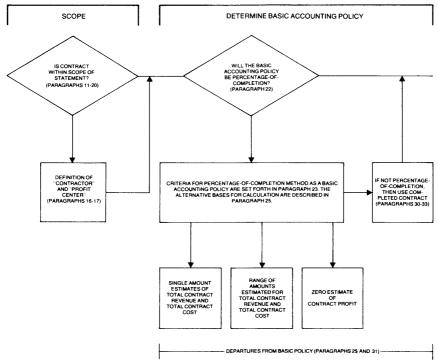
Transition

- An accounting change from the completed-contract method or from the percentage-of-completion method to conform to the recommendations of this statement of position should be made retroactively by restating the financial statements of prior periods. The restatement should be made on the basis of current information if historical information is not available. If the information for restatement of prior periods is not available on either a historical or current basis, financial statements and summaries should be restated for as many consecutive prior periods preceding the transition date of this statement as is practicable, and the cumulative effect on the retained earnings at the beginning of the earliest period restated (or at the beginning of the period in which the statement is first applied if it is not practicable to restate any prior periods) should be included in determining net income for that period (see paragraph 20 of APB Opinion 20, Accounting Changes).
- 91. Accounting changes to conform to the recommendations of this statement of position, other than those stated in paragraph 90, should be made prospectively for contracting transactions, new contracts, and contract revisions entered into on or after the effective date of this statement. The division recommends the application of the provisions of this statement for fiscal years, and interim periods in such fiscal years, beginning after June 30, 1981. The division encourages earlier application of this statement, including retroactive application to all contracts regardless of when they were entered into. Disclosures should be made in the financial statements in the period of change in accordance with APB Opinion 20, paragraph 28.



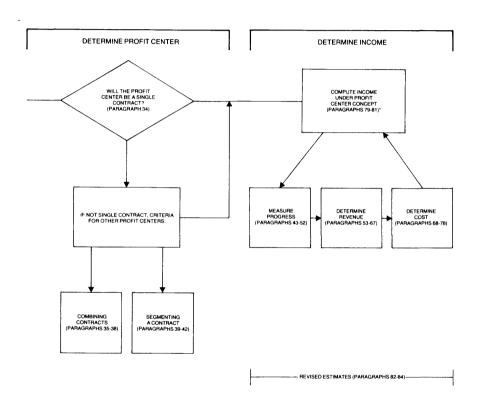
APPENDIX A

Schematic Chart of SOP Organization



NOTE: ALL PARAGRAPH NUMBERS ABOVE REFER TO TEXT OF SOP.

^{*}If computation results in a loss, see paragraphs 85-89



Types of Contracts

Four basic types of contracts are distinguished on the basis of their pricing arrangements in paragraph 15 of this statement: (a) fixed-price or lump-sum contracts, (b) time-and-material contracts, (c) cost-type (including cost-plus) contracts, and (d) unit-price contracts. This appendix describes the basic types of contracts in greater detail and briefly describes common variations of each basic type.

Fixed-Price or Lump-Sum Contracts

A fixed-price or lump-sum contract is a contract in which the price is not usually subject to adjustment because of costs incurred by the contractor. Common variations of fixed-price contracts are

- 1. Firm fixed-price contract—A contract in which the price is not subject to any adjustment by reason of the cost experience of the contractor or his performance under the contract.
- 2. Fixed-price contract with economic price adjustment—A contract which provides for upward or downward revision of contract price upon the occurrence of specifically defined contingencies, such as increases or decreases in material prices or labor wage rates.
- 3. Fixed-price contract providing for prospective periodic redetermination of price—A contract which provides a firm fixed-price for an initial number of unit deliveries or for an initial period of performance and for prospective price redeterminations either upward or downward at stated intervals during the remaining period of performance under the contract.
- 4. Fixed-price contract providing for retroactive redetermination of price—A contract which provides for a ceiling price and retroactive price redetermination (within the ceiling price) after the completion of the contract, based on costs incurred, with consideration being given to management ingenuity and effectiveness during performance.
- 5. Fixed-price contract providing for firm target cost incentives—A contract which provides at the outset for a firm target cost, a firm target profit, a price ceiling (but not a profit ceiling or floor), and a formula (based on the relationship which final negotiated total cost bears to total target cost) for establishing final profit and price.
- 6. Fixed-price contract providing for successive target cost incentives—A contract which provides at the outset for an initial target cost, an initial target profit, a price ceiling, a formula for subsequently fixing the firm

target profit (within a ceiling and a floor established along with the formula, at the outset), and a production point at which the formula will be applied.

- 7. Fixed-price contract providing for performance incentives—A contract which incorporates an incentive to the contractor to surpass stated performance targets by providing for increases in the profit to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.
- 8. Fixed-price level-of-effort term contract—A contract which usually calls for investigation or study in a specific research and development area. It obligates the contractor to devote a specified level of effort over a stated period of time for a fixed dollar amount.¹

Time-and-Material Contracts

Time-and-material contracts are contracts that generally provide for payments to the contractor on the basis of direct labor hours at fixed hourly rates (that cover the cost of direct labor and indirect expenses and profit) and cost of materials or other specified costs. Common variations of time and material contracts are

- 1. Time at marked-up rate.
- 2. Time at marked-up rate, material at cost.
- 3. Time and material at marked-up rates.
- 4. Guaranteed maximum cost—labor only or labor and material.

Cost-Type Contracts

Cost-type contracts provide for reimbursement of allowable or otherwise defined costs incurred plus a fee that represents profit. Cost-type contracts usually only require that the contractor use his best efforts to accomplish the scope of the work within some specified time and some stated dollar limitation. Common variations of cost-plus contracts are

- 1. Cost-sharing contract—A contract under which the contractor is reimbursed only for an agreed portion of costs and under which no provision is made for a fee.
- 2. Cost-without-fee contract—A contract under which the contractor is reimbursed for costs with no provision for a fee.

¹AICPA Industry Audit Guide, Audits of Government Contractors (New York: American Institute of Certified Public Accountants, 1975), pp. 3–4.

- 3. Cost-plus-fixed-fee contract—A contract under which the contractor is reimbursed for costs plus the provision for a fixed fee.
- 4. Cost-plus-award-fee contract—A contract under which the contractor is reimbursed for costs plus a fee consisting of two parts: (a) a fixed amount which does not vary with performance and (b) an award amount based on performance in areas such as quality, timeliness, ingenuity, and cost-effectiveness. The amount of award fee is based upon a subjective evaluation by the government of the contractor's performance judged in light of criteria set forth in the contract.
- 5. Cost-plus-incentive-fee contract (Incentive based on cost)—A contract under which the contractor is reimbursed for costs plus a fee which is adjusted by formula in accordance with the relationship which total allowable costs bear to target cost. At the outset there is negotiated a target cost, a target fee, a minimum and maximum fee, and the adjustment formula.
- 6. Cost-plus-incentive-fee contract (Incentive based on performance)—A contract under which a contractor is reimbursed for costs plus an incentive to surpass stated performance targets by providing for increases in the fee to the extent that such targets are surpassed and for decreases to the extent that such targets are not met.²

Unit-Price Contracts

Unit-price contracts are contracts under which the contractor is paid a specified amount for every unit of work performed. A unit-price contract is essentially a fixed-price contract with the only variable being units of work performed. Variations in unit-price contracts include the same type of variations as fixed-price contracts. A unit-price contract is normally awarded on the basis of a total price that is the sum of the product of the specified units and unit prices. The method of determining total contract price may give rise to unbalanced unit prices because units to be delivered early in the contract may be assigned higher unit prices than those to be delivered as the work under the contract progresses.

²AICPA Industry Audit Guide, Audits of Government Contractors, pp. 4-6.

APPENDIX C

Summary of Disclosure Recommendations in Statement of Position

Nature of Disclosure
Accounting policy—methods of reporting revenue
Method or methods of measuring extent of progress toward completion
Criteria for determining substantial completion
Information on revenue and costs arising from claims
Effects of changes in estimates on contracts
Effects of accounting changes to conform to SOP

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