

AD-A203 565

# The DoD Contractor Risk Assessment Guide

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13 OCT 1988  
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## OVERVIEW

The DoD Contractor Risk Assessment Guide (CRAG) Program is designed to encourage Department of Defense (DoD) contractors to develop more effective contractor internal control systems and to improve the effectiveness and efficiency of DoD oversight. Contractors who can demonstrate the implementation of internal control systems that meet CRAG control objectives will receive less direct Government oversight. By assessing the effectiveness of contractor internal control systems, the extent of Government oversight can be reduced, thereby enabling DoD to concentrate its oversight resources on known problem areas.)

The CRAG Program does not signal a change in DoD attitude toward the importance of oversight. The Government retains the ultimate responsibility for deciding whether and how much oversight is required to protect public interests. While the primary objective is to protect those interests, the Government and industry cooperatively can and must develop programs to make that oversight more effective and efficient. The CRAG Program achieves this goal by applying the principles of quality assurance to the oversight process in DoD. → See p A (4)

The CRAG Program is not a certification program and it does not require the implementation of new oversight procedures or standards in DoD. The CRAG objectives by themselves do not constitute a set of standards or a checklist for determining the adequacy of internal controls in the covered areas or for determining whether reduced oversight is warranted. The CRAG has to be used in the context of evaluating internal control systems using the regulations that are already in place in DoD.

Using the CRAG Program to evaluate whether control objectives are being addressed by contractors is only the first step in determining whether the systems are adequate and whether reduced oversight is warranted. Other crucial steps include evaluating whether the control systems assure that Federal laws and DoD regulations are being complied with, and whether the contractor conducts reliable documented tests of the control systems.

Differences of opinions which may arise during the evaluation of the internal control systems should be addressed using the procedures and practices already in place within DoD for resolving opposing views on contractor internal controls and compliance with Federal laws and DoD regulations. Since internal control systems and the complexity of specific contract areas vary, the review of the systems will vary in scope and detail on a case-by-case basis.

The contractor who wishes to use the CRAG should contact the Administrative Contracting Officer (ACO) who will arrange for the contractor to meet with the appropriate DoD oversight official (i.e., audit, contract administration, etc.). The oversight official will: (i) establish with the contractor a coordination process for ensuring the Government is fully aware of the contractor's plans and accomplishments; (ii) integrate the effect of the contractor's efforts into planned oversight activities; and, (iii) inform the contractor and the ACO, through periodic meetings, of the extent to which contractor activities have influenced the scope of Government oversight.

## PROGRAM RESPONSIBILITIES

The CRAG Program is a voluntary program in which the contractor has the basic responsibility for deciding the extent, if at all, to which it will participate. The CRAG Program will be implemented at the level of the contractor, the Administrative Contracting Officer (ACO), and the appropriate DoD oversight activity. The degree of reliance the Government can place on any subject area covered by a CRAG is largely determined by the quality of the contractor's system of internal controls and by the tests performed to verify those controls. Access to and documentation of contractor tests are essential components of reduced Government oversight so that the responsible Government representatives can properly evaluate the contractor's procedures and their application.

The CRAG Program is not intended to dictate the policies, procedures and controls to be utilized by contractors, nor to expand the right of access to records beyond existing regulatory provisions. The intent of the program is to recognize the extent to which the contractor's existing control system can be relied upon in order to reduce oversight; and it is thus envisioned to be cost-effective for both the contractor and the Government. If additional controls are considered necessary or if disagreements on adequacy of controls exist, the contractor can, at his election, expand or change his control system. Election by the contractor not to expand or change his control system will require continued oversight in particular aspects of the risk area(s).

### 1. Government general responsibilities:

a. DoD endorses a general program to reduce oversight at contractor locations where internal controls are effective.

b. Individual agencies responsible for contractor oversight should provide training and implementation guidelines to appropriate Government personnel in CRAG philosophy, policy and procedure.

### 2. Contractors who elect to participate have the following responsibilities:

a. Notify the ACO of the risk areas in which the contractor plans to participate in the CRAG program.

b. Describe and document the policies, procedures and controls which define the system that addresses the CRAG risk area(s).

c. Describe and document the program for training employees (where appropriate) in these procedures and policies.

d. Describe and document the mechanism(s) utilized to monitor and test the system.

e. Demonstrate, in a manner mutually agreed to with the ACO and cognizant DoD oversight activity, that the system is functioning as described.

f. Maintain continuing surveillance over the internal control system to assure that the CRAG objectives are being met.

3. Government implementation responsibilities.

a. The Administrative Contracting Officer (ACO) will:

(1) arrange for the contractor to meet with the appropriate DoD oversight official (i.e., audit, contract administration, etc.)

(2) advise offsite Government oversight activities of the existence and status of the CRAG.

b. The appropriate DoD oversight official will:

(1) establish with the contractor a coordination process for ensuring the Government is fully aware of the contractor's plans and accomplishments;

(2) integrate the effect of the contractor's efforts into planned oversight activities; and,

(3) inform the contractor and the ACO, through periodic meetings, of the extent to which contractor activities have influenced the scope of Government oversight.

## CONTRACTOR RISK ASSESSMENT GUIDE

### CHAPTER I. INDIRECT COST SUBMISSIONS

#### CONTROL OBJECTIVE

Provide assurance that indirect cost claims, proposals and billings applicable to U.S. Government contracts are prepared and submitted in accordance with U.S. Government laws and regulations.

#### MAJOR CONTROLS

- A. Preparation of Indirect Cost Submissions. Provide that policies and procedures are established and maintained to allocate allowable costs in billings, claims, or proposals applicable to U.S. Government contracts in accordance with FAR 31.2 and CAS.
- B. Allowability of Selected Costs. Provide that indirect costs identified in FAR 31.205 are properly classified as allowable or unallowable, including directly associated costs, for U.S. Government contract costing, billing and pricing purposes.
- C. Allocability of Indirect Costs. Provide that indirect costs are properly allocated to cost objectives in accordance with FAR and CAS as appropriate.
- D. Contractor Compliance Reviews. Provide reasonable assurance that the policies and procedures relating to indirect cost claims, billings, and proposals applicable to U.S. Government contracts are established, currently in practice, understood, and effectively implemented by contractor employees.

## CHAPTER II. LABOR CHARGING

### CONTROL OBJECTIVE

Establish timekeeping and labor charging practices which result in the accurate assignment of allowable and allocable labor costs to U.S. Government Contracts.

### MAJOR CONTROLS

A. Policies and Procedures. Provide adequate written policies and procedures for instructing employees on the proper charging of direct and indirect labor, and to reasonably assure the accuracy of recorded time charges to cost objectives.

B. Internal Controls. Provide for a system of internal controls to include:

- (i) the maintenance of accurate labor cost data,
- (ii) the accumulation and recording of labor costs allocable to cost objectives for the purpose of determining proper cost reimbursement on government contracts,
- (iii) the verification of labor cost transfers, and
- (iv) the segregation of responsibilities for labor related activities.

C. Orientation and Training. Establish a labor charging awareness program to train all employees, as appropriate, on proper labor charging practices.

D. Time card Preparation. Assure that labor hours are accurately recorded and that any corrections to timekeeping records are documented including the appropriate authorizations and approvals.

E. Allocation of Labor Costs to Cost Objectives. Reasonably assure the proper allocation of labor costs to cost objectives.

F. Validation of Undistributed Labor. Provide reasonable assurance that labor transfers or adjustments of the labor distribution are documented and approved.

G. Internal Reviews. Monitor the overall integrity of the labor/timekeeping system.

## CHAPTER III. MATERIAL MANAGEMENT AND ACCOUNTING SYSTEMS

### CONTROL OBJECTIVE

Material management and accounting system must have adequate internal accounting and administrative controls to assure system and data integrity.

### MAJOR CONTROLS

- A. System Description. Material management and accounting systems must have an adequate system description, including policies, procedures and operating instructions compliant with Federal Acquisition Regulation (FAR), Cost Accounting Standard (CAS), criteria as interpreted by this control objective and its major controls for all elements of affected cost.
- B. Bill of Materials and Master Production Schedule. Material management and accounting systems must provide assurance that the costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions. A 98 percent bill of material accuracy and a 95 percent master production schedule accuracy are desirable as a goal in order to assure that requirements are both valid and appropriately time-phased. If systems have accuracy levels below those above, the contractor must demonstrate the (i) there is no material harm to the Government due to lower accuracy levels, and/or (ii) the cost to meet the accuracy goals is excessive in relation to the impact on the Government.
- C. Operational Exceptions. The material management and accounting system must provide a mechanism to identify, report, and resolve system control weaknesses and manual overrides. Systems should identify operational exceptions such as excess/residual inventory as soon as known.
- D. Maintenance of Records and Audit Trails. The material management and accounting system must provide audit trails and maintain records necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired. Both manual records and those in machine readable form will be maintained for the prescribed retention period.
- E. Reconciliation of Recorded and Physical Inventory. The material management and accounting system must establish and maintain adequate levels of record accuracy, and include reconciliation of recorded inventory quantities to physical inventory by part number on a periodic basis. A 95 percent

accuracy level is desirable. If systems have an accuracy level below 95 percent, the contractor must demonstrate that (i) there is no material harm to the Government due to the lower accuracy level, and/or (ii) the cost to meet the accuracy goal is excessive in relation to the impact on the Government.

F. Transfer of Parts. The material management and accounting system must provide detailed description(s) of circumstances which will result in manual or system generated transfers of parts.

G. Costing of Material Transactions. The material management and accounting system must maintain a consistent, equitable, unbiased logic for costing of material transactions. The contractor will maintain and disclose a written policy describing the transfer methodologies. The costing methodology may be standard or actual cost, or any of the CAS 411.50(b) inventory costing methods. Consistency must be maintained across all contract and customer types, and from accounting period to accounting period for initial charging and transfer charging.

1. The system should transfer parts and associated cost within the same billing period.

2. In the few circumstances where it may not be appropriate to transfer parts and associated costs within the same billing period, use of a "loan/payback" technique must be approved by the ACO. When the technique is used there must be controls to ensure that (i) parts are paid back expeditiously, (ii) procedures and controls are in place to correct any overbilling that might occur, (iii) at a minimum the borrowing contract and the date the part was borrowed are identified monthly, and (iv) the cost of the replacement part is charged to the borrowing contract.

H. Allocations From Common Inventory. In a material management and accounting system where allocations from common inventory accounts are used, it must have controls, in addition to the requirements of B. and G. above to ensure that:

1. Reallocations and any credit due are processed no less frequently than the routine billing cycle;

2. Inventories retained for requirements which are not under contract are not allocated to contracts;

3. Algorithms are maintained based on valid and current data.

I. Commingled Inventory. The material management and accounting system must have adequate controls to ensure that physically commingled inventories that may include materials

charged or allocated to fixed price, cost type, and commercial contracts do not compromise requirements of any of the above major controls.

J. Internal Compliance Audits. The material management and accounting system must be subject to periodic internal audits to ensure compliance with established policies and procedures.

## CHAPTER IV. ESTIMATING SYSTEMS

### CONTROL OBJECTIVE

Provide a system for the development of cost estimates that are current, accurate and complete through the use of appropriate source data; the use of sound estimating techniques and appropriate judgment; the maintenance of a consistent approach; and the adherence to FAR 15-811, other Federal regulations, and established company policies and procedures.

### MAJOR CONTROLS

- A. Organization and Assignment of Responsibilities. Provide for a written description of the organization, duties and responsibilities of (i) personnel who prepare, review and approve cost estimates and (ii) the various functions that contribute to the estimating process such as accounting, planning, etc.
- B. Cost Estimate Development. Provide that estimating source data are applied appropriately and that the basis for estimating elements are disclosed by providing written guidelines for developing and supporting consistent and verifiable proposals.
- C. Compliance Reviews. Management to ensure that the estimating system policies and procedures are up to date, periodically reviewed, and implemented.

## CHAPTER V. PURCHASING

### CONTROL OBJECTIVE

Ensure that adequate purchasing methods are used by contractors for the acquisition of supplies and services under the terms of their contracts with the Department of Defense.

A contractor will facilitate its participation in CRAG by ensuring its purchasing system is established in accordance with the Defense Acquisition Regulation Supplement No. 1, "Contractor Purchasing System Review (CPSR) Program."

### MAJOR CONTROLS

- A. Policies and Procedures. Provide adequate written policies and procedures for guiding employees in the implementation of efficient and cost-effective purchasing practices.
- B. Internal Controls. Develop and implement an adequate system of internal controls.
- C. Subcontract Clauses. Ensure that subcontracts contain all flow down clauses required by the prime contract, as well as any clauses needed to carry out the requirements of the prime contract.
- D. Management of Purchasing. Organize and administer the purchasing department in such a way as to ensure the effective and efficient procurement of required materials and parts at the most economical cost from responsible/reliable sources, including appropriate make-or-buy participation.
- E. Purchase Requirements. Develop cost-effective and efficient purchase requirements in order to achieve adequate competition, the meeting of delivery schedules, the ordering of economic order quantities, the control of inventory and material, and the expediting and follow-up of purchases.
- F. Selecting the Source. Select the most responsive and responsible sources for providing required materials and promotion of competitive sourcing in order to obtain the most reasonable prices from sources that meet contractor quality requirements.
- G. Pricing. Ensure that some form of price or cost analysis will be performed in connection with every purchasing action.

H. Subcontract Award and Administration. Ensure that proper types of subcontracts are selected and that there are appropriate controls including oversight and surveillance of subcontracted effort.

I. Internal Audit Function. Monitor the overall integrity of the purchasing system.

## CONTRACTOR RISK ASSESSMENT GUIDE

### ADDENDUM

#### COMMONLY USED CONTROL PROCEDURES

Contractor testing of the internal control system is the key to the successful implementation of CRAG. The verification of effectiveness of the contractor's internal controls and control procedures by the Government will, to a great extent, determine how much reliance the Government can place on contractor internal control systems. The extent of that reliance by the Government drives the amount of subsequent oversight reduction.

These commonly used control procedures have been provided to assist contractors in assessing and meeting each major control objective. They consist of basic criteria that have previously been used by the government to evaluate contractor adherence with procurement regulations. These same criteria will continue to provide the basis for the level or extent of Government oversight evaluation and therefore, will obviously impact any future decision by the Government on the appropriate level of oversight reduction.

Implementation of all the control procedures is not a specific CRAG requirement. First, the commonly used control procedures are not all-inclusive. Second, all the listed control procedures would not necessarily apply at all contractor locations. Depending on unique contractor circumstances, implementation of control procedures could vary significantly at different locations. Therefore, they should be considered thoughtfully as a useful reference, but not be treated as a checklist.

## ADDENDUM

### CHAPTER I. INDIRECT COST SUBMISSIONS

#### COMMONLY USED CONTROL PROCEDURES

A. Preparation of Indirect Cost Submissions. Provide that procedures are established and maintained to allocate allowable costs in billings, claims, or proposals applicable to U.S. Government contracts in accordance with FAR 31.2 and CAS.

1. Establish procedures and controls which provide that employees involved with preparing indirect cost submissions for U.S. Government contracts are trained in the provisions contained in CAS and FAR relating to allowability, allocability and reasonableness of costs.

2. Provide documentation supporting interpretations used in establishing the allowability of costs.

B. Allowability of Selected Costs. Provide that indirect costs identified in FAR 31.205 are properly classified as allowable or unallowable, including directly associated costs, for U.S. Government contract costing, billing, and pricing purposes.

1. Establish procedures and controls which provide that unallowable costs, including directly associated costs, can be segregated from allowable costs at some point in time between incurrence of the costs and submission of any indirect cost proposal, billing, or claim to the U.S. Government. The method and timing of such cost segregation is discretionary; however, documentation should exist which will provide the means of verifying that proper segregation of costs has been accomplished.

2. The following costs warrant special consideration:

a. Entertainment costs: Establish procedures and controls that distinguish entertainment cost, as defined in FAR 31.205-14, from allowable costs, such as public relations cost; travel cost; employee morale, health and welfare cost; and trade, business, technical and professional activity cost.

b. Independent Research and Development (IR&D) and Bid and Proposal (B&P) cost: Establish procedures and controls which provide that IR&D and B&P costs are classified and allocated to U.S. Government contracts in accordance with FAR 31.205-18 and CAS 420. Specifically, procedures should require that:

(1) Each IR&D and B&P project should be separately identified if material in amount. When not material in amount, these costs may be accumulated in one or more project(s) within each of these two types of effort.

(2) The B&P projects should be described and identified, as appropriate, with a specific procurement objective and/or applicable request for proposal (RFP), request for quotation (RFQ), or invitation for bid (IFB).

(3) Effort such as production engineering, productivity improvement, industrial modernization incentives program (IMIP), etc. is not confused with IR&D and/or B&P effort. Effort of this type and the related cost accounts should be described in sufficient detail and specificity that distinguishes it from IR&D and B&P effort so as to preclude misclassification of these costs.

c. Legislative lobbying costs: Establish procedures and controls to provide that all allowable and unallowable costs under FAR 31.205-22 are properly classified and documented.

d. Professional and consultant service costs should be supported as prescribed in FAR 31.205-33.

e. Relocation costs:

(1) Establish procedures and controls which provide that employees involved in processing and/or approving relocation vouchers are trained in the allowability provisions of FAR 31.205-35.

(2) Payments should be in accordance with an established policy or practice that is consistently followed.

(3) Amounts claimed as allowable costs under government contracts should be as prescribed in FAR 31.205-35.

f. Selling costs: Establish procedures and controls which provide that selling costs are classified in accordance with FAR 31.205-38 and that:

(1) Allowable direct selling and market planning costs are separately identified from unallowable selling costs.

(2) Allowable selling costs are distinguished from B&P costs with respect to Government business.

(3) The method selected and analysis used to allocate selling and marketing costs should be documented and in compliance with FAR and CAS, as appropriate.

\* (4) Direct selling and market planning costs are segregated by class of customer (i.e., U.S. Government, FMS/foreign sales of military products, and commercial). The method of segregation should be verifiable through documentation.

g. Travel costs: Procedures and controls should be established which provide that:

(1) Employees involved in the processing and/or approval of travel vouchers are trained in the allowability provisions of FAR 31.205.46.

(2) Allowable and unallowable travel costs are appropriately classified at some point between incurrence of the cost and the time when claimed as a contract cost.

(3) Routines are in place to identify material amounts of unallowable labor activity based on the purpose of the travel.

(4) Records required to substantiate and justify contractor-owned, leased, or chartered aircraft costs are maintained in accordance with FAR 31.205-46.

h. Trade, business, technical and professional activity costs: Establish procedures and controls which provide that an adequate description of the business purpose of meetings and conferences is either contained in or referenced in the reimbursement voucher.

C. Allocability of Indirect Costs. Provide that indirect costs are properly allocated to cost objectives in accordance with FAR and CAS, as appropriate.

1. Establish procedures and controls which provide that all allowable and unallowable indirect costs are properly identified and allocated in accordance with FAR and CAS.

2. The following areas warrant special consideration:

a. Establish procedures and controls which provide that all costs properly includable in an indirect cost base bear a pro rata share of indirect costs irrespective of their acceptance as government contract costs in accordance with FAR 31.203(c). If a conflict arises between CAS and FAR, CAS will take precedence.

\* Notwithstanding industry's recommended deletion of this procedure, it is a critical Government test of a contractor's controls. It would therefore be misleading to delete this procedure and not provide the opportunity for reduced oversight in this area.

b. Establish procedures and controls which provide that expressly unallowable costs and mutually agreed to be unallowable costs are excluded from any indirect cost pool which is allocated to U.S. Government cost objectives.

c. Establish procedures and controls which provide that directly associated costs, when material in amount, are removed from indirect cost pools allocated to government cost objectives unless the cost with which it is associated is included in the base over which the indirect cost pool is allocated. In such instances, the directly associated cost should remain in the indirect cost pool.

d. Establish procedures and controls which provide that allowable indirect costs are accumulated in logical cost groupings with due consideration of the reason for incurrence of costs. Such indirect cost groupings (pools) should be allocated over a base that best represents a causal or beneficial relationship between the costs and benefiting cost objectives.

D. Contractor Compliance Reviews. Provide reasonable assurance that the policies and procedures relating to indirect cost claims, billings and proposals applicable to U.S. Government contracts are established, currently in practice, understood, and effectively implemented by contractor employees.

1. The contractor should conduct compliance reviews to reasonably assure that the major controls established in A, B, and C above are implemented.

2. The following areas warrant special consideration:

a. Adequacy of policies, procedures and controls.

b. Employee knowledge and compliance with policies and procedures.

c. Composition of indirect cost pools and the bases over which they are allocated.

d. Expense accounts should be periodically sampled to ascertain if unallowable costs are properly identified.

e. Consistency in the classification of costs are allowable and unallowable.

f. Treatment of miscellaneous income, credits, rebates and discounts.

3. Procedures and controls should be established which provide that follow-up action is taken in a timely manner.

## ADDENDUM

### CHAPTER II. LABOR CHARGING

#### COMMONLY USED CONTROL PROCEDURES

A. Policies and Procedures. Provide adequate written policies and procedures for instructing employees on the proper charging of direct and indirect labor and to reasonably assure the accuracy of recorded time charges to cost objectives. Policies and Procedures shall address:

1. Time card/time sheet preparation, control, submittal and approval.
2. A description of employee paid and unpaid absences.
3. Examples of timekeeping and labor distribution documents for both manual and automated systems, with instructions for completion, submittal and approval.
4. A statement regarding the consequences for knowingly mischarging time.

B. Internal Controls. Provide a system of internal controls to include:

- (i) the maintenance of accurate labor cost data,
- (ii) the accumulation and recording of labor costs allocable to cost objectives for the purpose of determining proper cost reimbursement on government contracts,
- (iii) the verification of labor cost transfers, and
- (iv) the segregation of responsibilities for labor related activities.

1. Timekeeping controls shall include:

- a. Adequate control of timekeeping records.
- b. Correct assignment of job numbers.
- c. Approval of changes in timekeeping records by appropriate company officials.
- d. Reconciliation of hours charged on timecards to attendance records, where applicable, and to labor cost summaries.
- e. Division of responsibility between timekeeping and payroll.

2. EDP controls shall include:

- a. Accurate and current documentation of the labor accounting system including software.
- b. System edits to reject invalid data and verify the accuracy of processing.
- c. Back up and recovery procedure.
- d. System checks to ensure that all transactions are authorized and that they are accurately processed.
- e. Restricted access to processing areas, programs, data and associated documentation.
- f. A clear audit trail for all updated transactions.

3. Management shall establish a system for approving and reviewing the transfer of labor costs from one cost objective to another and require justification for any such transfer.

4. The controls shall provide for the segregation of duties for labor related activities among several personnel or organizational units.

C. Orientation and Training. Establish a labor charging awareness program to train all employees as appropriate on proper labor charging practices. Such training shall cover:

1. Orientation programs for new hires emphasizing the employees's responsibility for accurate recording of labor.

2. The training program should stress management's responsibility to provide for the accurate recording of labor hours.

3. Periodic refresher courses on proper timekeeping and labor charging practices, especially for employees found not to be complying with company labor charging procedures.

4. An explanation of the penalties for knowingly mischarging time. This should include penalties imposed by the company and those by the government.

D. Time card Preparation. Assure that labor hours are accurately recorded and that any corrections to timekeeping records are documented including the appropriate authorizations and approvals.

1. Work authorizations and/or job assignments to the extent practical should be controlled and issued independent of those responsible for performing the work.

2. Manual Systems shall provide that:

a. Employees enter their own hours in ink and sign the completed timekeeping record.

- b. Timekeeping documents are kept under the employee's control.
- c. Direct labor hours are recorded on a daily basis.
- d. Corrections are made in ink by cross-outs and initialed by the employee.
- e. Time cards are initialed or signed in accordance with established policies and procedures.
- f. Time cards should be adequately controlled and preferably be pre-printed with employees name and number.

3. Automated Systems shall provide that:

- a. Only the employee can access the labor system with the employee's time charging instrument.
- b. Pre-printed work order/job assignment cards are readable by employees to ensure that the work performed is applicable to the job number being charged.
- c. Employees report lost or forgotten badges promptly.
- d. A badge control system is maintained if badges are utilized for labor and attendance recording.

E. Allocation of Labor costs to Cost Objectives. Reasonably assure the proper allocation of labor costs to cost objectives, including:

- 1. Verification that the total labor hours reflected in labor distribution summaries agree with the total labor charges as entered into the timekeeping system.
- 2. Provision that all of each employee's time is distributed as recorded.
- 3. Generation of an audit trail depending on the system used.
- 4. Reconciliation of labor distribution with time cards and wages/hours paid per the payroll.
- 5. Reconciliation of hours charged on time cards to attendance records, where applicable.
- 6. Assure that uncompensated overtime hours, if material, are accounted for in accordance with company policy.

F. Validation of Undistributed Labor. Provide reasonable assurance that labor transfers or adjustments of the labor distribution are documented and approved.

- 1. Labor cards/time cards should be reviewed to verify proper time card completion in accordance with procedures.

2. Labor distribution edit errors should be processed into a suspense account and billed to customers only after corrected.

3. Reports of suspense labor and edit errors should be generated and provided to the appropriate personnel for review and corrective action.

G. Internal Reviews. Monitor the overall integrity of the labor/timekeeping system by:

1. Conducting labor audits, including the testing of labor charges, for accuracy in accordance with company procedures.

2. Performing unannounced floorchecks in accordance with company policy and generally accepted auditing standards.

3. Establishing monitoring programs or activities which may include such items as periodic comparisons of budgeted labor costs with actual costs.

4. Providing special emphasis in sensitive areas which may include compliance with company policies regarding Bid and Proposal effort, IR&D effort and overrun contracts and contracts approaching ceilings.

5. Verifying work performed to an approved work authorization.

6. Issuing audit reports directly to responsible management.

7. Maintaining independence from the departments audited.

## ADDENDUM

### CHAPTER III. MATERIAL MANAGEMENT AND ACCOUNTING SYSTEMS

#### COMMONLY USED CONTROL PROCEDURES

This addendum is structured in sections by major control objective. Within each section is a statement of the major control objective followed by a listing of commonly used control procedures that may be used by contractors to support the control objective.

References in this addendum to policies and procedures, instructions, and descriptions refer to those approved by appropriate levels of management.

A. Systems Description. Managerial management and accounting systems must have an adequate system description, including policies, procedures and operating instructions compliant with FAR/CAS criteria as interpreted by this control objective and major controls for all elements of affected cost.

1. Descriptions of the major systems that comprise manual or automated systems (MMAS), including all integrated component systems. Examples of component systems are engineering release, shop floor control, inventory management purchasing, spares, etc. Descriptions of the interaction of component systems should be maintained, including flowcharts and/or narratives as appropriate.

2. Documentation for automated systems, indicating whether processing is primarily on line, batch, or mixed; and whether data are stored in a data base format, conventional file organizations, or mixed. Where data are not maintained in a single data base, description of the flow of data among the separate data bases should be provided.

3. Descriptions of historical data, retention periods and storage format.

4. Identification of the programming languages used to implement, process, and query the system.

5. Description of the training activities applicable to the contractor's control procedures.

B. Bill of Materials and Master Production Schedule. Managerial management and accounting systems must provide assurance that the costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased

requirements as impacted by minimum/economic order quantity restrictions. A 98 percent bill of material accuracy and a 95 percent master production schedule accuracy are desirable as a goal in order to assure that requirements are both valid and appropriately time-phased. If systems have accuracy levels below those above, the contractor must demonstrate that (i) there is no material harm to the Government due to lower accuracy levels, and/or (ii) the cost to meet the accuracy goals is excessive in relation to the impact on the Government.

1. Contract costs/billings for materials based on valid time-phased requirements. Materials represent valid time-phased requirements when (i) they are needed to fulfill the production plan (valid), and (ii) they are identified to contracts or other cost objectives in a manner consistent with their need to fulfill the plan (time-phased).

2. Material purchased and charged or allocated to contracts in greater quantities than time-phased requirements are justified.

3. Policies and procedures regarding the master production schedule, to include:

a. The level of master production schedule approval (identification of approving official).

b. Methods for evaluating the reasonableness of the master production schedule for capacity constraints.

c. Methods for periodically verifying the reasonableness of lead and flow times.

d. Processing externally and internally directed changes to the product.

e. A reasonable basis for measuring the accuracy of the master production schedule.

4. Systematic testing of the master production schedule for accuracy and appropriate corrective measures as warranted including records of the results of such tests.

5. Policies and procedures for bills of material include the following:

a. Bills of materials exist for assemblies and fabricated parts that generate materials requirements.

b. The development of original material requirements, as well as subsequent changes to those requirements.

c. Approval authority for releasing and maintaining bills of material.

d. Incorporating engineering changes into material requirements.

e. The process and controls for converting engineering bills of material to manufacturing bills of material.

f. The requirements for materials used on an "as required" (no specified quantity requirement) basis.

g. Substitute materials to include controls that prevent requirements from being input for both primary and substitute materials.

h. How and when the bills of materials records are maintained and purged.

i. A reasonable basis for measuring the accuracy of the bill of material.

6. Systematic testing of the bills of material for accuracy and appropriate corrective measures as warranted, including records of the results of such tests.

C. Operational Exceptions. The material management and accounting system must provide a mechanism to identify, report, and resolve system control weaknesses and manual overrides. Systems should identify operational exceptions such as excess/residual inventory as soon as known.

1. Exception reports designed and generated so as to allow management to act on operational exceptions in a timely manner.

2. Operating instructions that describe the conditions which cause exceptions to appear in exception reports and how they are to be resolved.

3. Procedures that identify persons or positions who are authorized to enter data in the system, resolve exceptions, and manually override system logic.

4. Controls which provide reasonable assurance that unauthorized and/or erroneous data are not accepted by the system.

5. Policies and procedures that prescribe how and when excess/residual/obsolete inventory is identified, reported and dispositioned by type of contract.

6. Procedures that prescribe how attrition, rework, lost/found, and scrap are identified, reported and dispositioned.

D. Maintenance of Records and Audit Trails. The material management and accounting system must provide audit trails and maintain records necessary to evaluate system logic and to verify

through transaction testing that the system is operating as desired. Both manual records and those in machine readable form will be maintained for the prescribed retention period.

**E. Reconciliation of Recorded and Physical Inventory.** The material management and accounting system must establish and maintain adequate levels of record accuracy, and include reconciliation of recorded inventory quantities to physical inventory by part number on a periodic basis. A 95 percent accuracy level is desirable. If systems have an accuracy level below 95 percent, the contractor must demonstrate that (i) there is no material harm to the Government due to the lower accuracy level, and/or (ii) the cost to meet the accuracy goal is excessive in relation to the impact on the Government.

1. Maintain a system for controlling material once it has been issued to work in process.
2. Procedures and controls that prescribe how inventory record accuracy is verified as to quantity and physical location.
3. Description of material classification system used in conjunction with or for purposes of record accuracy and/or count tolerances.
4. Procedures and controls for making adjustments for the difference between booked and physical inventory counts, to include the costing of such adjustments in the accounting records, if appropriate.
5. Procedures and controls regarding issues of material.

**F. Transfer of Parts.** The material management and accounting system must provide detailed description(s) of circumstances which will result in manual or system generated transfers of parts.

1. Descriptions of the circumstances that result in physical and/or financial transfers.

**G. Costing of Material Transactions.** The material management and accounting system must maintain a consistent, equitable, and unbiased logic for costing of material transactions. The contractor will maintain and disclose a written policy describing the transfer methodologies. The costing methodology may be standard or actual cost, or any of the CAS 411.50(b) inventory costing methods. Consistency must be maintained across all contract and customer types, and from accounting period to accounting period for initial charging and transfer charging.

1. The system should transfer parts and associated cost within the same billing period.

2. In the few circumstances where it may not be appropriate to transfer parts and associated costs within the same billing period, use of a "loan/payback" technique must be approved by the ACO. When the technique is used there must be controls to ensure that (i) parts are paid back expeditiously, (ii) procedures and controls are in place to correct any overbilling that might occur, (iii) at a minimum the borrowing contract and the date the part was borrowed are identified monthly, and (iv) the cost of the replacement part is charged to the borrowing contract.

H. Allocations From Common Inventory. In a material management and accounting system where allocations from common inventory accounts are used, it must have controls, in addition to the requirements of B. and G. above to ensure that:

1. Reallocations and any credit due are processed no less frequently than the routine billing cycle;

2. Inventories retained for requirements which are not under contract are not allocated to contracts;

3. Algorithms are maintained based on valid and current data;

4. Procedures and controls exist which provide assurance that allocations from common inventory accounts are based on valid time-phased requirements;

5. Policies and procedures exist for classification of floor stock (e.g., nuts and bolts) and the costing and charging of floor stock to contracts.

I. Commingled Inventory. The material management and accounting system must have adequate controls to ensure that physically commingled inventories that may include materials charged or allocated to fixed price, cost type, and commercial contracts do not compromise requirements of any of the above major controls.

J. Internal Compliance Audits. The material management and accounting system must be subject to periodic internal audits to ensure compliance with established policies and procedures.

1. Contractor initiated reviews of the various aspects of the material management and accounting system on a periodic basis in accordance with written instructions.

2. Procedures and controls provide that followup action is taken in a timely manner.

## ADDENDUM

### CHAPTER IV. ESTIMATING SYSTEMS

#### COMMONLY USED CONTROL PROCEDURES

A. Organization and Assignment of Responsibilities. Provide for a written description of the organization, duties and responsibilities of (i) personnel who prepare, review and approve cost estimates and (ii) the various functions that contribute to the estimating process such as accounting, planning, etc.

1. Establish clear responsibility for preparation, review and approval of cost estimates.

a. Maintain written documentation of current organizational responsibilities and the duties of estimating personnel.

b. Establish and maintain a system description of the flow of work in the estimating process from the initiation of a proposal to the contract certification date.

2. Assure that assigned personnel have sufficient training, experience and guidance to perform estimating tasks in accordance with established company procedures.

a. Provide training for employees (including technical employees) involved in the estimating process in the application of both the Government regulations and company policies and procedures pertaining to the estimating process.

b. Train selected estimating employees, where appropriate, in the use of statistical aids and advanced estimating techniques including appropriate proposal file documentation procedures.

c. Provide for periodic review and update of training modules and periodic training sessions for experienced personnel as well as new hires.

3. Provide for appropriate supervision throughout the estimating process.

4. Provide for management review of the estimating system.

B. Cost Estimate Development. Provide that estimating source data are applied appropriately and that the basis for estimating

elements are disclosed by providing written guidelines for developing and supporting consistent and verifiable proposals.

1. Identify the sources of data, the estimating methods and the rationale used in developing cost estimates.

a. Provide procedures and instructions on the extent of documentation required for a proposal, such as:

- (1) conditions, assumptions, qualifications;
- (2) basis of each cost element;
- (3) milestones for contract performance; or
- (4) reconciling the detail and summary level data.

b. Establish procedures to ensure that all documentation supporting proposals is contained in the bid file or readily available by the contract certification date.

c. Establish procedures to ensure that all updates of the documentation supporting proposals are contained in the bid file or readily available by the contract certification date.

2. Provide for consistent application of estimating techniques.

a. Include or reference in the estimating system documentation all related policies and procedures, such as formats for proposal preparation and the required detail for support; general cost estimate development procedures and specific estimate development by cost element; and separate guidelines for special treatment areas (make-or-buy policies, spare parts pricing, special tooling and test equipment, etc.).

b. Establish, describe, and utilize uniform formats for submission of data in support of proposals.

c. Where electronic data processing capabilities are used for cost estimating, maintain current documentation, including any capabilities for summarizing the detailed supporting data.

d. Establish internal controls over estimating systems relating to:

(1) the identification and detection of direct and indirect cost duplications;

(2) the detection and timely correction of errors;  
and

(3) the protection against cost duplications and omissions.

3. Provide clear identification of the pricing policy for sensitive areas as identified by the Government and contractor, which may include areas such as start-up costs for the follow-on contracts; burdens for intracompany effort; inventory items, including residual inventory; and government owned or furnished equipment.

4. Provide for the use of historical experience where appropriate including the results of negotiations with subcontractors and suppliers as to price adjustments of initial bids or proposals.

5. Require the use of appropriate analytical methods.

6. Integrate information available from other management systems as appropriate.

a. Assign responsibility for estimating each indirect cost pool and allocation base and establish procedures for the dissemination of the rates to estimating segments on a current basis.

b. Document the methods and support used to develop indirect rates, pools and bases.

7. Provide procedures to update cost estimates in a timely manner throughout the proposal evaluation and negotiation process.

8. Address responsibility for review and analysis of subcontract prices.

C. Compliance Reviews. Management to ensure that the estimating system policies and procedures are up to date, periodically reviewed, and implemented.

1. Periodically review and update policies and procedures for compliance with applicable Federal regulations.

2. Provide for internal reviews of the estimating system, such as:

a. Testing employee compliance with supervisory and organizational responsibilities.

b. Performing tests of the adequacy of training methodologies.

c. For a representative sample, comparing cost projections with actual results and analyze differences.

d. Performing post-award reviews of a representative sample to determine that cost or pricing data were current, accurate and complete at the time of contract certification.

3. Provide for action and follow-up on recommendations resulting from internal reviews.

## ADDENDUM

### CHAPTER V. PURCHASING

#### COMMONLY USED CONTROL PROCEDURES

A. Policies and Procedures. Provide adequate written policies and procedures for guiding employees in the implementation of efficient and cost-effective purchasing practices.

1. Written policies and procedures must be issued at a level that has definite line authority over all the segments involved.

2. There must be written procedures that encompass a contractor's purchasing operation. (Refer to "List of Topics for Which Written Purchasing Policies and Procedures Are Required," on page V. 9-13.)

B. Internal Controls. Develop and implement an adequate system of internal controls.

1. Establish sound policies that govern the procurement, control and use of material and purchased services.

2. Issue written policies that apply to the tasks and functions affecting material and other purchase costs.

3. Issue written policies that ensure purchased materials are obtained from companies that meet the contractor's quality requirements.

4. Establish clear lines of authority and responsibilities for operations and records.

5. Conduct internal audits that will review, evaluate and strive to improve the company's procedures and practices.

6. Establish a program for education and training of the purchasing personnel.

C. Subcontract Clauses. Ensure that subcontracts contain all flow down clauses required by the prime contract, as well as any clauses needed to carry out the requirements of the prime contract.

1. The company must flow down to subcontractors the applicable clauses required by the prime contract.

2. Purchasing personnel must be aware of the distinction between general or standard contract provisions and those which are optional with the contractor.

**D. Management of Purchasing.** Organize and administer the purchasing department in such a way as to ensure the effective and efficient procurement of required quality materials and parts at the most economical cost from responsible/reliable sources.

1. Purchasing files must be adequately documented so as to provide a complete and accurate history of purchase transactions. (Refer to "List of Purchase File Contents" on page V. 12-13.)

2. There shall be a system of reports and controls that reflects performance and provides the means through which the purchasing organization reports its performance to company management.

3. When the prime contract contains a value engineering clause, there must be a procedure for ensuring that this clause is included in applicable subcontracts.

4. In accordance with FAR Subpart 15.7, a make-or-buy program is to be established. Usually, this is accomplished by setting up a make-or-buy committee, composed of representatives from various departments, including purchasing.

5. There shall be adequate procedures in place for establishing and issuing material budgets. When cost overruns or underruns occur, these controls should at least provide early indication so that proper measures can be taken.

**E. Purchase Requirements.** Develop cost-effective and efficient purchase requirements in order to achieve adequate competition, the meeting of delivery schedules, the ordering of economic order quantities, the control of inventory and material, and the expediting and follow-up of purchases.

1. Advance purchasing planning is essential to a successful purchasing program and shall be used to foster competitive sources to the maximum extent feasible from among suppliers capable of providing requisite quality.

2. Before identifying a specific purchase action for a new item, a requirement must be developed and reviewed in order to determine which parts will be manufactured and which will be purchased.

3. Purchasing schedules should be realistic and allow sufficient purchasing lead time.

4. There must be adequate materiel inventory control policies, procedures and implementation.

5. There must be an expediting activity in place in order to be able to follow-up on purchase orders and to ensure the delivery of ordered materials prior to the date on which the production department actually requires them.

6. The traffic/transportation department must work closely with purchasing in providing routings and methods of shipments for purchased items, thereby minimizing the costs of shipments.

7. Receiving must work closely with purchasing to control effectively the receipt and disposition of incoming material.

8. Packaging policies and procedures must be adequate and current to ensure that the packaging specifications given to suppliers are easily understood and in accordance with contract requirements.

F. Selecting the Source. Select the most responsive and responsible sources for furnishing required quality parts and materials and promoting competitive sourcing among dependable suppliers in order to obtain the most reasonable prices from sources that meet contractor quality requirements.

1. Source selection policies and procedures must be in written form and follow government requirements using sound commercial practices where permitted.

2. There must be written policies on intracompany transactions, including a policy on competition of affiliates and divisions with outside subcontractors.

3. Purchasing must seek to promote competitive sourcing to the maximum extent possible.

4. The company procedures must provide guidance and require buyers to declare affirmatively in the case file memorandum that a determination has been made that a proposed supplier is a reliable source.

5. The company must develop a Vendor Performance Rating System that evaluates price, quality, and delivery performance.

6. Written justification must be provided for purchasing single source items.

7. The company must adhere to the provisions of Small and Disadvantaged Business and labor surplus area rules and regulations.

G. Pricing. Ensure that some form of price or cost analysis is performed in connection with every purchasing action.

1. The contractor must perform some form of cost/price analysis of its subcontractor's and supplier's proposals/quotations.

2. There must be written policies and procedures in order to ensure that consistent and adequate cost/price analysis is routinely performed.

3. Provision must be made for securing the Certificate of Current Cost or Pricing Data when required.

4. Regardless of the organizational responsibility for price/cost analysis, the buyer has sole responsibility for the contract price.

5. There must be a system in place for seeking and taking advantage of purchase discounts.

6. The company must develop procedures to control and administer the volume of small purchases to minimize administrative costs.

7. When engineering changes are made, the purchase order and subcontract files must include an analysis of the underlying price or cost data and any subcontract negotiations, where appropriate.

**H. Subcontract Award and Administration.** Ensure that prime contract clauses and provisions are reviewed and that appropriate consideration is given to flow down of contract provisions to subcontracts.

1. Guidelines must be in place for determining the type of subcontracts that are to be awarded and under what circumstances.

2. There must be adequate measures in place for evaluating the technical and cost aspects of subcontract proposals.

3. The final purchasing package must be reviewed by the appropriate personnel and must contain all the necessary instructions, requirements, and flow down clauses before being awarded.

4. There must be a subcontract surveillance program in place.

5. The subcontract administrator and appropriate personnel must work closely to resolve design, production, reliability, and delivery problems.

6. The subcontract administrator must monitor and correlate cost and progress of the subcontracts as required.

7. Procedures must be established to alert the Government on award of all subcontracts that will require interim and final audit of cost type subcontracts.

8. The contracting officer must be promptly notified of potential significant subcontract problems that may impact on the delivery, quality, or price of the prime contract.

9. Procedures must be established for performing progress payment reviews.

I. Internal Audit Function. Monitor the overall integrity of the purchasing system.

1. Conduct reviews of the various aspects of the purchasing system on a periodic basis in accordance with written audit plans.

2. Maintain organizational independence from those departments audited.

3. Issue audit reports directly to top level management.

4. Establish procedures and controls which ensure that timely follow-up reviews are performed concerning prior audit findings.

5. Keep informed of pertinent statutory and regulatory changes.

6. Ensure that the internal audit function is adequately staffed with qualified personnel having skills commensurate with their tasks.

7. Ensure that an adequate ethics program is in place and that it addresses kickbacks and other criminal or unethical activities.

LIST OF TOPICS FOR WHICH WRITTEN  
PURCHASING POLICIES AND PROCEDURES  
ARE REQUIRED

1. Delineation of the purchasing department's standards of ethical conduct, responsibility for contacting suppliers, making purchase commitments, and challenging requisitions irregularities.
2. Keeping estimating organizations up to date with respect to vendor quotations and negotiated price data.
3. Review of designs, drawings, and specifications of subcontracted items.
4. Description of the make-or-buy program.
5. Method for developing and soliciting potential subcontractors.
6. Establishment of a formal source selection program.
7. Description of major and/or critical subcontractor reporting requirements for postaward management.
8. Identification of high-risk subsystems, components, and other items to be subcontracted.
9. Evaluation of suppliers and updating vendor historical data.
10. Timely preparation, appropriate review, approval, and transmission of accurate and complete technical data packages and/or purchase requisitions.
11. Current and comprehensive purchasing instruction for the preparation, processing, and issuance of purchase orders.
12. Methods of ensuring that purchasing personnel are complying with applicable Government regulations and public laws.
13. Review of requisitions for the same or similar items for all purchasing requirements for consolidation to effect maximum economy, including the screening of available stocks and surpluses.
14. A system to ensure satisfactory flow down of applicable prime contract terms and conditions in purchase orders and subcontracts.
15. The issuance of intracompany transactions.
16. Transactions between affiliates, subsidiaries, or parent company.

17. Requirements for adequate written justification of single/sole source purchasing and split awards.
18. Cost-effective methods for processing the high volume of low dollar value orders and calls against blanket orders and open-end subcontracts.
19. Adequate preaward surveys of prospective suppliers.
20. Selection of the proper type of subcontracts.
21. Adequate cost and price analysis.
22. Documented justification of negotiation objectives and differences between negotiation objectives and negotiated prices.
23. Review and approval of requirements documents by appropriate technical and support functions before final acceptance by purchasing personnel.
24. Definitization of unpriced orders and changes in a timely manner.
25. Proper control of cost reimbursement, time and material, and labor-hour subcontracts.
26. Adequate visibility of the subcontracts in the areas of quality, cost, schedule, and performance.
27. Verification of performance before disbursing progress payments.
28. Control of the use of nonstandard parts and components by subcontractors.
29. Exercise of controls over the acquisition of special tools and special test equipment by subcontractors.
30. Establishment of material/inventory policy.
31. Acceptance or return of materials.
32. Use of Government property.
33. Adequate review and processing of contract terminations.
34. Closing of subcontracts.
35. Administrative Contracting Officer advance notification and consent.
36. Adequate documentation of all aspects of the purchase order transactions.

37. Obtaining prompt payment discount terms from suppliers.
38. Effective systems for complying with the Small and Disadvantaged Business and labor surplus area subcontracting program contract clause.
39. An effective system of qualifying suppliers and maintaining their quality and related performance history.
40. Supplier quality requirements.

## List of Purchase File Contents

The following list of purchase file contents represents the typical materials found in contractor's purchase order files. Contractors vary from company to company as to specific filing practices for these documents. Because automated computer-based systems are now used extensively to maintain some of this information, it is understood that traceability and cross-reference to these sources is considered acceptable practice.

1. The purchase order.
2. The purchase requisition, along with all required approvals.
3. The request for quotations (RFQ), showing all bidders solicited.
4. Copies of the vendors' quotations.
5. A bid tabulation sheet that summarizes and compares vendor quotations.
6. Certificates for the rent-free use of Government facilities.
7. Vendor surveys or facilities capability reports, including financial evaluations.
8. Source selection explanation.
9. Price or cost analysis data, such as analysis of previous prices paid, comparisons of vendor's price versus in-house estimate, analysis of the data submitted by a vendor in support of its proposed cost breakdown, and an analysis of a successful bidder's breakdown versus other bidders' breakdowns.
10. Negotiation summary, including current cost or pricing certificate, when appropriate.
11. Basis for selection of contract type.
12. Copies of technical data, such as engineer's technical evaluations, drawings, specifications, inspection requirements, and lists of special tooling or test equipment required.
13. Price redetermination or termination data, if appropriate.
14. Correspondence between the purchasing department and the bidders.
15. Evidence of Small and Disadvantaged Business enterprise consideration.

16. Information concerning the use of special terms and conditions and approval thereof.

17. Departmental and management approvals, as required.

18. Administrative Contracting Officer notification and consent, if required.