DCAAM 7640.1; DCAA Contract Audit Manual

CHAPTER 9

Audit of Cost Estimates and Price Proposals

Table of Contents

9-000 Audit of Cost Estimates and Price Proposals **

9-001 Scope of Chapter **

a. This chapter presents guidance for evaluating estimates of cost and profit supporting price proposals submitted by contractors in connection with the award, administration, modification, or repricing of Government contracts. The guidance applies to audit of estimates submitted in connection with negotiation of the following:

(1) prices of firm-fixed-price contracts;

(2) initial and adjusted prices of redeterminable fixed-price contracts;

(3) initial and successive target costs of incentive fixed-price and incentive cost-reimbursement contracts;

(4) estimated costs of cost-plus-fixed-fee contracts;

(5) estimated costs for indefinite-delivery/indefinite quantity contracts;

(6) prices of spare parts;

(7) contract change proposals;

(8) rates for time and material and technical services contracts;

(9) claims for price adjustments due to abnormal events;

(10) economic price adjustments;

(11) price adjustments pursuant to Cost Accounting Standards clauses; and

(12) advance agreements on forward pricing factors such as indirect cost rates, labor hour rates, material handling rates, and other elements of pricing formulas to be used repetitively.

b. Section 1 discusses administrative procedures for field pricing support; that section includes coverage of requests to provide specific cost information and to assist higher-tier contractors audit proposals submitted by subcontractors. Section 2 provides guidance in evaluating the adequacy of certified cost or pricing data and data other than certified cost or pricing data. Section 3 discusses general evaluation procedures for estimates. Sections 4 through 7 present specific guidelines for evaluating cost estimates for direct labor, direct material, other direct costs, and indirect costs. Section 8 presents special considerations in pricing the impact of inflation, including the audit of proposed contractual economic price adjustment provisions. Profit evaluation assistance to the contracting officer is discussed in Section 9. Section 10 highlights criteria for audit of estimates derived from cost estimating relationships that involve noncost variables. Section 11 provides guidance for limitation on pass through charges. Section 12 provides guidance in evaluating forward pricing rate agreements. Section 13 provides guidance for DCAA participation as a member of a should-cost audit team.

9-002 Related Audit Guidance **

a. Chapter 5-500 covers Audits of Estimating Systems. It presents procedures applicable to auditing contractor compliance with the cost estimating requirements at DFARS 252.215-7002.

b. Audit report preparation is covered in Chapter 10. Since audit reporting requirements affect the fieldwork required, be familiar with Chapter 10 provisions applicable to the proposal at hand before you begin the proposal audit.

c. The Graphic & Regression Analysis guidebook, Improvement Curve Analysis guidebook, and EZ Quant describe graphic and computational analysis and improvement curve analysis techniques as evaluation tools, and should be used in conjunction with this chapter.

d. Throughout this chapter, various Cost Accounting Standards are cited. Refer to the complete text of CASB Rules, Regulations and Standards and to Chapter 8 for audit guidance on CAS.

e. The DCAA Intranet and the APPS software provide an audit program to examine price proposals which is to be tailored to the specific circumstances and an audit program for the examination of proposals under $10 million, under activity code 21000. When appropriate, the DCAA Intranet and the APPS application software should be used to expedite:

(1) rate applications,

(2) audit summarization, and

(3) preparation of summary working papers, audit report exhibits, and rate schedules.

f. Chapter 4-403 covers the format and contents of working papers. Standardization in design, content, and arrangement facilitates audit, supervision, and report preparation.

g. As part of planning the audit of a price proposal, brief the request for proposals in accordance with 3-303. During each audit of cost estimates or price proposals, observe any operations security (OPSEC) measures required by current DoD contracts or requests for proposals, in accordance with 3-305.

h. While auditing the price proposal, if anticompetitive procurement practices are suspected, refer to 4-705 for audit guidance.

9-003 The Total Audit Environment **

a. The guidance in this chapter should be applied to the audit of individual proposals with due regard for the audit environment, considering previous audit experience with the contractor and the materiality of the various elements of the proposal. A detailed evaluation of each element of every proposal submitted for audit is normally unnecessary.

b. Make full use of all relevant knowledge about the contractor which has been documented in prior audits. This would include:

(1) The strengths or weaknesses of the contractor's estimating system, which may also be the subject of a separate examination (see 5-500).

(2) The general credibility of the contractor's proposals, as determined in the course of previous proposal evaluations and postaward audits. When a contractor's accounting practices or representations of historical and projected costs repeatedly contain significant deficiencies, errors, or unreasonable estimates which suggest either negligence or an apparent intent to deceive the Government, such cases are reportable under 4-700.

(3) The reliability of the contractor's cost accounting system.

(4) Current trends in the contractor's labor, indirect cost, or other costs, as reflected in the results of recent proposal evaluations or audits of incurred costs.

(5) Current changes in and/or modernization of the contractor's manufacturing practices as noted during tours of the manufacturing floor, perambulations, and in the results of estimating system compliance audits, recent proposal evaluations, or audits of incurred costs. Changing the flow of how products are made can affect the flow of costs.

(6) Cost avoidance recommendations made as a result of operations audits (see 14-500).

9-100 Section 1 - Administrative Procedures for Field Pricing Support **

9-101 Introduction **

a. This section presents the general procedures for processing requests for advisory audit reports and other contract audit information related to contractor and subcontractor price proposals. Basic guidance on audit fieldwork and preparation of audit reports is not repeated in this section.

b. The term "PCO" is also applied to a plant representative/ACO who has been delegated procurement authority to execute the particular contract action.

9-102 The Field Pricing Support Concept **

9-102.1 The Approach **

a. FAR 15.4 and DFARS 215.4 describe the responsibilities and functions for the audit, analysis, and negotiation of price proposals, and related matters concerning negotiated procurements. Much of this guidance applies to all types of negotiated pricing actions, including contract price redetermination after costs have been incurred under the contract. However, certain requirements may apply only to the initial pricing of contracts, contract additions, or contract modifications (sometimes called forward or pre-award pricing actions).

b. Field pricing support consists of all audit and other specialist effort necessary for the contracting officer to determine the reasonableness of the proposed cost or price. FAR 15.404-2 assigns the contracting officer responsibility for determining the extent of field pricing support required, and for establishing the specific areas in which audit input is needed. This usually results in a request to DCAA to provide field pricing assistance. DCAA provides the following forward pricing services:

Type of Service	Scope of Service	Contractor's Supporting Documentation	Type of Report Opinion	Reporting	CAM Cite
Advisory Services Specific Cost Information [Code 25000]	Provide readily available information located either in the FAO files, or obtainable by requests for information (RFI).	Certified cost or pricing data; data other than certified cost or pricing data; General ledger detail; and other data as requested	None	Documentation varies (e.g. telephone with written confirmation memorandum)	9-107
Attestation Application of Agreed-Upon Procedures [Code 28000]	Performance of specific procedures agreed-upon in advance with the customer	Certified cost or pricing data; data other than certified cost or pricing data	None	Report	9-108
Attestation Examination Cost Realism Analysis [Code 27010]	Examination to ascertain whether amounts comply with solicitation terms	Data other than certified cost or pricing data	Opinion on the proposed amounts examined	Report	9-108 9-311.4
Attestation Examination Audit of Complete Proposal or Audit of Part of a Proposal [Code 21000]	Examination to ascertain whether proposed amounts comply with solicitation terms	Certified cost or pricing data on the complete proposal or part(s) to be examined; data other than certified cost or pricing data on the complete proposal or part(s) to be examined (cost information only)	Opinion on the proposed amounts examined	Report	Chapter 9
Attestation Examination Audit of Forward Pricing Rates [Code 23000]	Examination to ascertain whether proposed rates comply with FAR Part 15, FAR Part 31, applicable Agency Supplements, and CAS (if applicable)	Cost or pricing data	Opinion on the proposed rates examined	Report	9-700 9-1200

A clear understanding of the requestor's needs is essential for establishing the scope for audits of proposals for either prime contracts or subcontracts as discussed in 9-103.3 and 9-104.2. When significant contractor deficiencies or system problems exist, the auditor should explain them to the contracting officer and discuss the potential for additional audit coverage. When a request is received for an examination of the entire proposal and there is little risk involved, discuss with the requestor if their needs could be met by other services such as examining part of the proposal (9-108) or providing specific cost information (9-107). See 4-104 for guidance on preparing acknowledgment and notification letters. There are special requirements for reporting on an examination of a part of a contractor's proposal as stated in 9-108, 9-206, and 9-207.

c. FAR 15.404-2(a)(3) encourages contracting officers to team with appropriate field experts throughout the acquisition process, including negotiations. Early communication among team members assists in determining the extent of assistance required, the specific areas for which assistance is needed, a realistic audit schedule, and the information necessary to perform the field pricing assistance audit. The Defense Contract Management Agency (DCMA) advocates use of Integrated Product Teams (IPTs) whenever possible. DCAA auditors may not be a team member of an IPT. However, DCAA will provide audit services, as necessary, to assist the contracting officer in determining a fair and reasonable price (See 1-800). DCMA no longer prepares traditional field pricing reports which integrate both technical and pricing aspects. FAR 15.404-2(b)(1)(ii) does not require that field pricing assistance reconcile technical and audit recommendations. When the PCO determines that audit support is required, then the PCO will send the audit request directly to the cognizant audit office. The PCO sends requests for field pricing support services broader than audit services to the plant representative/ACO, with a copy to the cognizant contract audit office; the contract auditor shall treat the advance copy of the PCO request as a signal to begin the audit work. DCMA policy is that requests for DCAA audit will be forwarded to the cognizant FAO and the requestor be apprised of such action and advised that future requests may be sent directly to DCAA. If after receiving an advance request there is concern about whether an audit will be necessary, immediately discuss the matter with the ACO. Any uncertainty about whether an audit will be needed should be resolved in favor of starting the audit. If the ACO states that an audit will not be requested, contact the PCO to determine whether ACO actions will be sufficient. If the PCO states that an audit is necessary, it should be performed as a direct request in accordance with FAR 15.404-2(c) and the ACO should be so advised (see 9-103.1d.(7)).

d. The field pricing support process is conducted as a cooperative team effort in order to ensure timely and effective response to the PCO's request. The efforts of all field pricing support team members are complementary, therefore, cooperation and communication are essential in order to establish a proper understanding of each member’s role.

e. The procedural steps involving contract audit are discussed in later paragraphs of this section. The roles and relationships described in 9-305 also apply in the field pricing support situation.

9-102.2 Applicability of Procurement Procedures **

a. FAR/DFARS procedures are cited in this section for convenience and only briefly outlined. Slight variations may occur among DoD components, and procedures applicable to non-DoD agencies may differ. Auditors auditing major or numerous proposals for a particular DoD or non-DoD contracting activity should be familiar with the applicable agency FAR supplement and any special proposal requirements of the procurement office. This information is needed to ensure good support to the PCO, to anticipate procurement needs for contract audit services, and to estimate and monitor workload trends. It is especially important in this regard to know the procurement office's dollar thresholds and related criteria for requesting field audit of proposals (9-102.3).

b. FAR 15.404-2(c)(2) and 10 U.S.C.3841 provide that contracting officers are required to contact the cognizant audit office to determine whether an audit of the proposed indirect costs was conducted during the preceding 12 months. Contracting officers are not to request a preaward audit of indirect costs if this would entail duplicative audits. Requests may be made in circumstances where the information available is considered inadequate for determining reasonableness of the proposed indirect costs. (See 1-303)

c. Prime contractors are required to register in the Central Contractor Registration database (now known as the System for Award Management (SAM)) prior to award of a contract or agreement, which contains the clause at FAR 52.204-7 or DFARS 252.204-7004. When the contractor is required by the solicitation to register in the SAM database, the contracting officer should verify that the contractor has complied with that requirement prior to contract award.

9-102.3 Applicability of Dollar Thresholds **

a. DFARS PGI 215.404-2(c) limits contracting officer requests for DCAA audit assistance, unless there are exceptional circumstances, to:

- Fixed-price proposals exceeding $10 million
- Cost-type proposals exceeding $100 million

b. The audit thresholds apply to the total proposal value. Contracting officers may request audit of parts of a proposal that are less than the threshold provided the total proposal value exceeds the threshold.

c. When a request for audit of a price proposal under the audit threshold is received from a contracting officer, FAO management personnel should discuss with the requestor the exceptional circumstances bringing about the need for a DCAA audit and document this discussion in the working papers. When assessing if an exceptional circumstance exists to utilize DFARS PGI 215.404-2(a)(ii), contracting officers should consider the totality of the factors contributing to the risk that the proposal could be significantly misstated. Items which constitute exceptional circumstances where a contracting officer should consider requesting audit assistance include:

- When a contracting officer is aware of factors that present a risk of significant misstatement and the command wants an audit to support the negotiation position;
- When communication with DCAA or DCMA has identified significant risk factors or cost elements which they have recommended an audit be performed; or
- When an estimating deficiency exists which greatly impacts one or more cost elements.

If the circumstances do not warrant a DCAA audit, the audit team should generally refer the requesting official to the DCMA for field pricing assistance.

d. Auditors will continue to assist DCMA in their pricing analysis by responding to requests for available specific cost/rate information (see 9-107).

e. When an assist audit request of an under threshold subcontract price proposal is received from another DCAA office, the receiving office should perform the audit as requested. In the case of an assist request from a DCAA office performing an audit of a prime or higher-level subcontract, the higher level auditor has determined that the audit risk is such that audit procedures need to be performed on the subcontract proposal in order to opine on the higher level proposal being audited. This includes an assist audit request of an under threshold subcontract price proposal. As with any request for audit, the receiving office should coordinate with the requesting office to thoroughly understand the risk associated with the subcontract proposal, and perform the audit as requested.

f. Although DFARS PGI 215.404-2(c) applies to DoD, the DFARS PGI audit thresholds should be considered for requests from non-DoD organizations. The non-DoD request for audit of a price proposal under the DFARS PGI audit threshold should be supported with the documented circumstances on the need for an audit.

9-103 DCAA Field Pricing Support at the Prime Contract Level **

9-103.1 Coordination of the Request-Field Pricing Support **

a. In responding to requests for audit services, FAO managers, supervisors, and auditors should keep in mind that the PCO and ACO are the primary users of our services. Our aim is to provide timely and responsive audits, audit reports and financial advisory services that meet the user's needs. This goal can be achieved by establishing open and effective channels of communication that allow for the sharing of information and ideas as the audit progresses. FAR 15.404-2(a)(3) encourages PCOs to team with appropriate field experts and to communicate early in the acquisition process.

b. In particular, requests for field pricing support need to be handled in an expeditious manner. Proposals should be evaluated for adequacy as soon as possible after receipt so that corrective action can be taken immediately (see 9-200). The

auditor should seek assistance from the ACO/PCO, if needed, early in this process. The Agency has also developed criteria that can be used to evaluate the adequacy of contract price proposals. The auditor may discuss the checklist with contracting officers and suggest that they use it in the screening process. The form is available on the DCAA Intranet and the APPS (file name Proposal Adequacy Checklist).

c. Locally established working arrangements may expedite handling of relatively routine requests. However, effective field pricing support to the PCO may, in some cases, require individualized cooperative arrangements between the plant representative/ACO and the auditor. Also, some matters may need reconsideration during the course of major field pricing support cases.

d. Additional key matters the auditor may need to coordinate:

(1) Obtaining a copy of the contractor's proposal and applicable portions of the RFP, if not received with the PCO request and not provided directly by the contractor.

(2) Establishing the due date for the audit report, considering existing audit workload, required audit scope, or any other relevant factors. The contract auditor should coordinate due date adjustments with the PCO and the plant representative/ACO. Any audit conflicts involving more than one PCO should be worked out jointly between the auditor and the plant representative/ACO (see 9-103.7).

(3) Obtaining a clear understanding of the requestor's needs and identifying areas of the contractor's proposal for special consideration. Verbal discussions with the PCO and/or ACO should be held before beginning the audit if the auditor does not have a clear understanding of the requestor’s needs. Otherwise, communicate information regarding the nature, timing, and extent of planned testing and reporting, including the level of assurance expected to be provided, in the acknowledgment of request letter.

(4) Detailed risk assessment procedures should only be performed on the part(s) of a proposal under audit. However, during the risk assessment, the auditor should coordinate with the requestor to resolve potential inconsistencies between the requested audit effort and any significant risk factors that may come to the auditor’s attention (e.g., previous audit findings, known noncompliances, etc.). If the request is for an audit of something that is of lesser significance and lower risk that should be handled as a request for specific cost information (see 9-107.1), the auditor should discuss this with the contracting officer and make an appropriate recommendation. Likewise, the auditor should discuss with, and make an appropriate recommendation to the contracting officer if the request is for less than a full audit and significant risk factors come to the auditor’s attention that reveal a full audit should be conducted. However, the final decision regarding the need for a complete examination, an application of agreed-upon procedures, or a request for specific cost information rests with the contracting officer. If there is disagreement with the contracting officer after the auditor clearly explains that the requested level of audit services is not appropriate based on the risk, Financial Liaison Advisor (FLA) assistance should be requested. The FLAs

can provide valuable assistance working with procurement officials to ensure requests for services are accurate, clear, and appropriate for the risk involved. (FLAs are identified in the FLA Locator on the DCAA Intranet site.) If a command does not have an assigned FLA, the auditor should contact the appropriate Senior FLA. If the contracting officer continues to disagree with the FAO's recommendation to modify the request for audit services, the FAO should consider elevating the issue to regional management for further coordination with the command's management. The modifications that the FAO believes should be made due to its risk assessment should be addressed in the acknowledgement letter or response to specific cost information along with the actions taken to elevate the issue within the command. In the interim, the auditor should commence with the audit services requested by the contracting officer. If the disagreement is not resolved during the audit, relevant information should be included in an Appendix as "Report on Other Matters". The "Report on Other Matters" paragraph(s) should confirm the auditor's advice regarding the potential impact of known issues and the reasons given by the contracting officer for not modifying the requested audit services. The working paper file should include documentation on the discussions and decisions.

(5) Arranging for all technical input needed for the audit, including field technical reports the PCO requests to be incorporated into the audit report. Technical input can often be obtained through informal consultation; however, written confirmation of the requested information should follow. Similarly, informal audit input may be needed to support other field pricing support efforts before the audit report is prepared (see 9-306).

(6) Arranging for any needed supplementary analysis of subcontract or intracompany proposals by the prime contractor and/or Government field personnel. Time constraints require that this area be given early, expedited attention (see 9-104 and 9-105). If the prime contract proposal contains foreign subcontract costs requiring audit by foreign auditors under a reciprocal audit agreement, the auditor should recommend that the contracting officer seek a separate audit of those subcontract costs under the terms of the reciprocal agreement (see 4-1007).

(7) Obtaining the PCO's estimate of most likely level of procurement requirements under a proposed basic ordering agreement or time-and-materials-type contract. The reasonableness of proposed costs should be evaluated considering the anticipated level of effort.

(8) Obtain the PCO's estimate of a reasonable quantity for indefinite-delivery/indefinite-quantity (IDIQ) contracts (FAR 16.500). IDIQ contracts are used to acquire supplies and/or services when the exact times and/or exact quantities of future deliveries are not known at the time of contract award. IDIQ contracts generally require the Government to order, and the contractor to furnish, at least a stated minimum quantity of supplies or services. Other considerations should include anticipated funding limitations by year; anticipated order dates; and whether the basic contract includes various contract types (cost-plus, fixed price) for task orders (for service) or delivery orders (for supplies). Proposal audits of IDIQ contracts should be completed in

the same manner as any other proposal audit. The risk assessment should be based on the potential order types (cost vs. fixed) and estimated quantities to be ordered. When the PCO cannot provide a reasonable estimate of the potential orders, the maximum order value should be used. However, when determining the dollars examined for DMIS purposes, it is important to remember that if an estimate is not available from either the contracting officer, or the contractor, dollars examined should not be reported (see DMIS User's Guide for more information). There is no conflict in having different dollar amounts for risk assessment purposes and DMIS reporting purposes.

(9) When requests are received directly from the PCO, auditors should not delay these audits awaiting a request through the ACO. When these requests are received, necessary coordination will be made directly with the requestor.

(10) When the contracting officer identifies that the price proposal is for an FMS procurement, the auditor should coordinate with the contracting officer the release of contractor proprietary data to the FMS user and the level of detail to be included in the report. The auditor should also determine at the start of the evaluation whether the contractor will have any reservations or restrictions on release of the report to the FMS user (see 9-110). Similarly, if the price proposal evaluation is for Direct Commercial Contract (DCC) users (foreign countries), requested by the DCMA International and Federal Business Division, DoD Central Control Point (DoDCCP), the auditor should coordinate with the DoDCCP and FLA the release of contractor proprietary data to the DCC user and the level of details to be included in the report.

9-103.2 Acknowledging the Request **

At an early stage in planning the audit, contact the requestor to notify them that we received the request and discuss his or her needs and any specific concerns. Within five days of receipt, the auditor will follow up with an e-mail documenting that conversation and indicate we will furnish an acknowledgment letter once the risk assessment is complete and we have coordinated an agreed-to due date. Once the risk assessment is complete, provide an acknowledgment letter which includes the agreed-to date and details regarding the scope of the services based on risk factors (see 4-104).

9-103.3 Audit Scope - Field Pricing Support **

a. When an examination of the contractor's price proposal is requested, the auditor is responsible for determining the scope and depth of examination required to render an informed opinion on the contractor's compliance with solicitation terms related to pricing. To determine the scope of audit, the auditor should first read the audit request and get a clear understanding of exactly what is requested and whether the proposal is based on certified cost or pricing data or data other than certified cost or pricing data. The auditor should then complete a risk assessment (see 4-403f) based on this understanding. After completing the risk assessment, the auditor should coordinate with the requestor to resolve any inconsistencies between the requested audit effort and the scope of audit determined by the auditor's assessed level of risk

(see 9-103.1d(3)). Prior to performing the detailed audit steps, the auditor should submit the risk assessment and audit program to the supervisor for review and approval (see 3-203.2b.). Requests for audit of part(s) of a price proposal are discussed in 9-108.

b. As early as possible, determine whether technical review requested by the ACO will be sufficient to allow the auditor to express an opinion regarding the quantitative and qualitative aspects of the contractor's proposal. The auditor is responsible for ensuring that adequate evidential matter is examined to render an opinion on the proposed costs. This includes making decisions about what technical assistance is needed, effectively communicating with the technical specialist(s), assessing the impact of technical specialist findings upon the audit opinion, and reporting on the uses of technical specialists or the impact of their nonavailability (see Appendix B and 9-306).

c. When ACO/PCO-imposed time constraints make it impossible to perform an entire proposal examination, coordinate with the ACO/PCO to determine if other services can be performed in the prescribed time frame to assist in the negotiation of the award (e.g., providing specific cost information or examining part of a proposal - see 9-107 and 9-108). If no services can be provided in the prescribed time frame, confirm the results of the conversation in writing with the ACO/PCO.

d. If there is a lack of adequate technical input necessary for the expression of an unqualified opinion regarding the quantitative and qualitative aspects of the proposal, the audit report should be qualified accordingly.

9-103.4 Sampling Procedures to be Used **

a. Requests to evaluate an inordinate number of items and/or dollar amounts should be discouraged. Criteria used by some procuring offices for auditing line items may be more extensive than DCAA's established statistical sampling guidance and government auditing standards requirements. Although the auditor establishes the scope of audit following established and accepted statistical sampling procedures (see 4-600 and the Variable Sampling Guidebook), the requestor's sampling procedures may be considered, as appropriate.

b. Coordinate the selected line-item sample with the PCO. Additional line items of particular concern to the PCO that were not selected in the initial sample selection should be looked at separately on a case-by-case basis. Coordinating the stratification process and ensuring that random techniques are properly applied will make the sample results more useful to the auditor and the requestor.

c. Value Evaluation. A value evaluation involves a subjective assessment of item prices (as compared to an illustrated parts breakdown, picture, drawing, or sketch of the item), including a short written description of labor, material, and engineering characteristics of the item. The purpose of a value evaluation is to determine if the price offered appears to be a fair value. For example, a value evaluation could determine that $1.50 is a fair price for a switch, toggle, multi-terminal while $11.50 may not be a

fair price; or that $10.00 is not a fair price for a particular bolt while $0.25 may be a fair price. Generally, a value evaluation is performed as a procurement function. Therefore, the auditor should ensure that a listing of all items that failed the value evaluation has been provided as part of the audit request. These items, along with an explanation as to what caused their failure, should be considered as audit leads. If the auditor plans to evaluate a failed value item separately, the requestor should be advised so as to avoid duplication.

9-103.5 Request to Report by Line Item **

a. Audit requests which require auditors to spend an inordinate amount of time reporting their findings by line item do not usually result in an economical use of audit resources, particularly when the contractor's accounting system does not identify total cost by individual line item.

b. Although some contractors propose engineering and other direct support effort by using estimating or pricing factors for individual line items, their accounting systems usually do not account for direct support cost by individual line item. Furthermore, the use of such techniques cannot be supported by historical cost experience.

c. When there is no direct relationship between factors and individual line item costs, the total amount of direct support effort should be evaluated by Government technical personnel to ascertain the reasonableness of the effort proposed. The auditor will recommend labor and indirect cost rates applied to this total effort and results will be reflected in the audit report. The auditor will also comment on any estimating/pricing techniques used to distribute the direct effort to line items and their impact on the proposed cost.

d. Contractors may not record their costs on a line-item basis and it may not always be practical to track audit findings to a line item. When impediments to identification exist, request contracting officer assistance before any additional audit resources are spent to develop audit findings and write a report by line item. In these cases, the contracting officer should solicit the contractor's assistance to aid in the identification of costs by line item. Such assistance is needed in order for the auditor to report questioned costs by line item.

9-103.6 Requests to Report on Comparative Historical Cost Information **

a. The requirement to have comparative historical cost information should be placed on the contractor and included as part of the cost proposal.

b. If a request to develop this type information is received, request that the contractor prepare the information, notify the requestor of the action taken, perform whatever audit steps are necessary to verify the accuracy of the information, and include the information with the audit report. In the event the information is not received in time for inclusion in the audit report, include appropriate comments necessary to explain the circumstances. This, of course, does not preclude the inclusion of readily available recent historical cost information in audit reports to support the audit findings.

9-103.7 Scheduling Audit Report Issuance **

a. Issuance of a report on an audit of a price proposal should not be delayed beyond the agreed-to due date pending the receipt of an assist audit report (9-104) or technical report (Appendix B). Neither should the report be delayed because of the contractor's oral statement about revising the proposal. However, other developments during the course of the audit may impact the audit report schedule, such as:

(1) Serious problems with the contractor such as lack of cooperation, insufficient supporting data, or denial of access to records, which may have a major adverse impact on price negotiations (see also 9-205).

(2) Expansion of audit requirements by the PCO.

(3) Major unanticipated problems with the proposal, such as unusual or complex data or significant controversial items of cost.

(4) New, competing priorities in other PCO requests.

b. Promptly discuss these other developments with the PCO or plant representative/ACO. His or her early attention may correct the problem and eliminate the need for the auditor to request a due date change or for an audit report qualification. FAR 15.404-2(d) requires that the contracting officer be notified in writing, following immediate oral notification, of circumstances shown in (1) above. The notification should include a description of the deficient or denied data or records (copies of the deficient data should be provided, if requested by the contracting officer), the need for the evidence, and the costs associated with the deficient or denied data or records (1-504.3).

c. Supplemental reports may be required upon receipt of assist audit reports (9-104), technical reports (9-103.8), or receipt of additional certified cost or pricing data. In addition, FAR 15.404-2(c)(3) requires the contracting officer to provide to the auditor updated information that affects the audit. FAR 15.404-2(c)(1)(ii) requires the auditor to immediately notify the contracting officer about any information disclosed after submission of an audit report that may significantly affect the findings. This information may include data related to costs unsupported in the original audit report. The contracting officer will require the offeror to concurrently submit this data to the audit office. Upon receipt of the data and a request to evaluate it, the auditor should initiate a timely audit of the data and issue a supplemental report if the status of negotiations is such that a supplemental report will serve a useful purpose.

d. If an extension of the audit report due date is considered necessary, follow the procedures in 4-105, including coordination and, documentation of the extension and, if applicable, report qualification.

e. Peak workload periods and other unforeseen strains on FAO audit resources do not relieve FAO management from the responsibility for judicious and timely management of proposal audits. Therefore, every effort should be made to issue

proposal audit reports by the original due dates.

9-103.8 Technical Evaluations Impact on Audit Report Schedule **

a. If the auditor requests a technical analysis, she/he normally will incorporate the financial effect of the analysis in the audit report. In view of the number of technical specialties that could be involved, there may be several technical reports to consider (see 9-103.1 and Appendix B). If the auditor requests a technical analysis, (s)he should not expect any other party to consolidate reports on proposal analyses made by the several technical specialists on the field pricing support team.

b. In the absence of adequate requested technical analysis, the report will be qualified. However, if the auditor can obtain sufficient evidence to support an opinion on the proposal, including requirements, then a request should not be made and the report should not be qualified. This holds even if the auditor knows that an evaluation is being done, and the results are not received. A qualification should not be used in this case even though the technical report may question elements which the auditor did not question.

c. Technical report results which are not received in time for inclusion in the initial audit report will be incorporated in a supplemental report, if the status of negotiation is such that a supplemental report will serve a useful purpose. All technical report results received by the auditor will be included in the audit report.

d. Any continued delays in receipt of field technical reports required to satisfy the PCO's request for field pricing support should be treated as a matter of special management concern because of the impact on contract audit workload. If the matter cannot be resolved at the local level, it should be elevated to the regional office.

9-104 Field Pricing of Subcontract Proposals Included in Prime Contract Price Proposals **

9-104.1 Basic Responsibilities for Subcontract Proposals **

a. FAR 15.404-3(b) requires contractors to conduct appropriate subcontract price or cost analysis and include those analyses with their proposal support. FAR 15.408, Table 15-2 requires that the contractor provide data showing the basis for establishing the source and reasonableness of price. For competitive acquisitions, the contractor should also include the degree of competition. This data should be provided for all acquisitions exceeding the pertinent threshold set forth in FAR 15.403-4(a)(1). For noncompetitive acquisitions that meet the requirements of FAR 15.403-4(a)(1), the certified cost or pricing data supporting the prospective source's proposal as required by FAR 15.404-3(c)(1) should also be submitted.

b. Primary responsibility for evaluation of subcontractor proposals rests with prime contractors and upper-tier subcontractors. FAR 15.404-3(b) require contractors and higher-tier subcontractors to conduct appropriate cost or price analyses to establish the reasonableness of proposed subcontract prices. FAR 15.408, Table 15-2 requires contractors and higher-tier subcontractors to conduct price analysis of all subcontractor

proposals and a cost analysis of each subcontract proposal when certified cost or pricing data are required by FAR 15.403-4(a)(1) regarding noncompetitive methods and to provide the results of such evaluations prior to negotiations. FAR 15.404-3 and DFARS PGI 215.404-3 permit the contracting officer to request audit or field pricing support to analyze and evaluate the proposal of a subcontractor at any tier (notwithstanding availability of data or analyses performed by the prime contractor), if the contracting officer believes that this support is necessary to ensure reasonableness of the total proposed price. DFARS PGI 215.404-2(c)(i) further provides that, if, in the opinion of the contracting officer or auditor, the review of a prime contractor's proposal requires further review of subcontractor's cost estimates at the subcontractors' plants (after due consideration of reviews performed by the prime contractor), the contracting officer should inform the ACO having cognizance of the prime contractor that a review is required.

c. During coordination of the PCO request for audit of a prime contract proposal (9-103.1), the needed coverage of any significant proposed subcontract costs will be a major consideration. The auditor at the prime contract level plays a major role in ensuring that proposed subcontract costs are adequately evaluated. Depending upon the contractor's basis for the proposed subcontract costs, an evaluation may be made only at the prime contractor plant or an audit at the subcontractor plant may be required (see 9-103 and 9-104.2). If the prime contract proposal contains foreign subcontract costs requiring audit by foreign auditors under a reciprocal audit agreement, coordination with the PCO is especially important (see 4-1007).

d. In some cases, audits of subcontracts may be performed when requested by the contracting officer prior to completion of the prime contractor's proposal and the prime contractor's analysis of the subcontract proposal provided all of the following three guidelines are met:

(1) The subcontract proposal has been approved by the appropriate subcontractor management,

(2) The prime contractor has submitted the subcontract proposal to the Government with an assertion from the prime contractor's management that it intends to contract with this subcontractor, and

(3) The contracting officer, prime contract auditor, or next higher-tier subcontract auditor requests an audit of the subcontractor proposal and informs the subcontract auditor that the contracting officer has determined subcontract audit support is required based on DFARS PGI 215.404-3(a)(i). The PGI provides that such assistance may be appropriate when, for example:

(a) There is a business relationship between the contractor and the subcontractor not conducive to independence and objectivity,

(b) The contractor is a sole source supplier and the subcontract costs represent a substantial part of the contract cost,

(c) The contractor has been denied access to the subcontractor's records,

(d) The contracting officer determines that, because of factors such as the size of the proposed subcontract price, audit or field pricing assistance for a subcontract at any tier is critical to a fully detailed analysis of the prime contractor's proposal,

(e) The contractor or higher-tier subcontractor has been cited for having significant estimating system deficiencies in the area of subcontract pricing, especially the failure to perform adequate cost analyses of proposed subcontract costs or to perform subcontract analyses prior to negotiation of the prime contract with the Government; or

(f) A lower-tier subcontractor has been cited as having significant estimating system deficiencies.

e. When auditors determine that a division affiliated with the prime contractor is proposing to perform subcontract effort or interdivisional transfer effort and there are unaffiliated companies in competition to perform as a subcontractor, notify the contracting officer. Because of the potential for bias, the contracting officer should ask offerors to submit a plan explaining how they will ensure that the competition will be conducted fairly and result in the best value for DoD. The Government is not expected to act as a surrogate source selection official or to approve the selection of a particular source. Also, see 9-104.2b.(3) regarding the potential need for an assist audit.

f. The prime contract auditor is responsible for providing the subcontract auditor with Government price negotiation memorandums applicable to negotiations with the prime contractor concerning subcontract prices.

9-104.2 Deciding Whether a Government Field Audit of a Subcontractor's Proposal Should be Obtained **

a. Generally the prospective prime contractor should support proposed subcontract prices, including performance of price or cost analysis of subcontractor certified cost or pricing data, when required by FAR 15.408, Table 15-2 regarding noncompetitive methods. DFARS PGI 215.404-3(a)(v) provides that when the contracting officer's selection is based on a decision other than lowest price, deficient contractor analyses may be returned for correction. The Government may decide, however, that adequate evaluation of a prime contract proposal requires field pricing support at the location of one or more prospective subcontractors at any tier.

b. The prime contract auditor will specifically evaluate each pricing submission and available supporting data to determine the need for subcontractor assist audits. As part of this evaluation, ascertain the adequacy of the prime contractor's completed price or cost analysis of subcontract proposals. For those analyses that are not completed, determine the contractor's completion schedule and consider the adequacy of its procedures for conducting price/cost analysis. An estimating system deficiency report should be issued if the contractor fails to perform the required price/cost analysis of its subcontractors (see 5-110). There may be no need to request an assist audit when the

contractor's procedures are adequate and the cost analyses are scheduled for completion prior to negotiation. This independent evaluation of the risks associated with subcontracts and the resulting determinations on the assist audits to be performed will be clearly documented in the working papers. FAO's should not rely on arbitrary dollar thresholds alone for requesting subcontract assist audits. The following items will generally indicate a need for an assist audit:

(1) The contractor's price or cost analysis is inadequate or is not expected to be completed prior to negotiations.

(2) The prime contractor's policies and procedures for awarding subcontracts are inadequate.

(3) There is a business relationship between the prospective prime contractor and subcontractor not conducive to independence and objectivity, as in the case of a parent-subsidiary or when prime and subcontracting roles of the companies are frequently reversed.

(4) The proposed subcontract costs represent a substantial part of the total contract costs.

(5) The prospective prime contractor was denied access to the proposed subcontractor's records.

c. Upon determining and documenting the need for an assist audit, establish whether the assist audit has already been appropriately requested by either the ACO or PCO. If a needed assist audit has not been requested, immediately bring this matter to the attention of the ACO and PCO and convey the reason the assist audit should be obtained.

d. The auditor should take special care to point out to the ACO and PCO any prime contractor price/cost analysis that will not be available before the conclusion of audit field work, but is scheduled for completion prior to negotiations (see 9-104.2b.). Also comment on the adequacy of the contractor's procedures for conducting price/cost analysis (see 9-406.1). This information will allow the ACO and/or PCO to decide whether to wait for the contractor's price/cost analysis or to request an assist audit if the prime contract auditor has not already requested an assist audit.

e. When the prime contract auditor determines that the ACO or PCO has requested or will request an assist audit, he or she should at once alert the subcontract auditor and confirm that the audit can be completed timely. The prime auditor will immediately confirm the notification. If the subcontract auditor has not already begun the audit, it should be started upon such notification.

f. If, after notification and discussion with the ACO and PCO, the assist audit is still determined necessary and it is not going to be requested by either the ACO or PCO, the prime contract auditor will prepare and address an assist request to the prime contractor ACO. The prime contract auditor will also immediately notify the

subcontract auditor of the impending audit request and send a copy of the request directly to the assist auditor. It should include all of the information required by DCAA's management information system to set up an assist audit assignment including a due date which, if possible, will allow the assist audit results to be incorporated into the prime auditor's report. The request for assist audit should be accompanied by copies of:

- the subcontractor's proposal, along with all related cost, pricing, and pertinent technical data,
- if available, the results and supporting data from the prime contractor's evaluation of the subcontractor's proposal, and
- the audit request received by the prime DCAA office (used to identify reimbursable work).

g. The auditor cognizant of the subcontractor should obtain a clear understanding of the requestor's needs and identify areas of the subcontractor's proposal for special consideration (in addition to any specified by the PCO/ACO). To the extent necessary, discussions with the PCO, ACO, and/or auditor cognizant of the contractor should be held before beginning the audit. If the request is for an audit of an immaterial cost item(s) or one which could be handled as a request for specific cost information (see 9-107.1), the auditor cognizant of the subcontractor should discuss this with and make an appropriate recommendation to the contracting officer. However, the final decision regarding the need for a complete audit, an application of agreed-upon procedures, or specific cost information rests with the contracting officer. The working paper file should include documentation on the discussions and decisions.

h. A Government audit of proposed subcontract costs does not relieve the prime contractor of its responsibilities. FAR 15.404-3(b) and FAR 15.408, Table 15-2 require prime contractors and higher-tier subcontractors to conduct price or cost analysis of each subcontract proposal and include the results of these analyses and the subcontractor's certified cost or pricing data in the prime contractor's price proposal. The DCAA auditor should include an Exhibit in the audit report identifying subcontracts requiring contractor price or cost analyses which have not yet been provided to the auditor (see proforma language included in working paper A).

i. Auditors should not perform audits of subcontract proposals where the prime contract is a firm-fixed-price contract and has been already negotiated. An audit of a subcontract proposal must serve a valid Government interest. Generally, this would mean a potential for a Government prime contract price adjustment if the proposal is found to be misstated. An audit is appropriate only when a firm-fixed-price type contract has a special contract clause providing for recovery of later subcontract price reductions.

9-104.3 Coordination of Major Program Subcontract Assistance **

A DoD contracting activity is required to notify applicable contract administration activities when a planned major acquisition will require extensive, special, or expedited

field pricing assistance of subcontractors' proposals (DFARS PGI 215.404-2(c)(ii)). DCAA support of these programs will be facilitated by prompt and thorough coordination among the FLA, regional offices, FAOs, and Headquarters element involved in the acquisition program.

9-104.4 Processing Requests for Audit of Subcontractor Price Proposals **

a. Under DoD field pricing support procedures, audit requests of subcontractor proposals, at any tier, will be processed through plant representative/ACO channels. This applies whether the request has been initiated by the PCO, by the field pricing support team, or by the cognizant auditor at the prime contractor location. In each case, a copy of the request is to be sent directly to the contract auditor responsible for audit of the prospective subcontractor. The request will be accompanied by copies of (1) the subcontractor's proposal to the prime or higher-tier contractor, including a proposal cover sheet if FAR 15.408, Table 15-2 is used, and related certified cost or pricing data, and (2) the review package accomplished by the prime contractor and/or by the higher-tier subcontractor involved, including any cost and/or price analysis if available (FAR 15.404-3).

b. Upon receipt of either a copy of the PCO request, a written request through ACO channels, or a copy of the prime contract auditor's request, the auditor at the subcontractor location will set up the assist audit assignment and begin the audit, if not already started as a result of following the guidance for advance telephone notification of impending requests in 9-104.2. The request will be acknowledged following the guidance in 4-104. Required technical assistance for such audits will be arranged through ACO channels as currently provided for in 9-103.1d and Appendix B.

9-104.5 Special Requirements for Timeliness and Coordination of Subcontractor Audits **

a. Time available for proposal audit becomes successively shorter as field pricing support is required at major subcontractors and lower subcontract tiers. To support the PCO on the prime contract pricing action, field audit offices must take special prompt action on requests and reports concerning subcontract proposals.

b. The prime contract auditor is responsible for taking all reasonable steps to ensure that the results of the assist audit are incorporated in the final audit report. This includes following up periodically on the status of all assist audits being performed and documenting this follow-up effort in the audit working papers. Thus, the prime contract auditor must be fully aware of the results of any cost evaluations performed at prospective subcontract locations. Coordinate closely with the plant representative/ACO to ensure complete interchange of communications to and from other plant representatives/ACOs and contract auditors concerning the proposed subcontract costs. If incorporation of assist audit results is not possible, the prime contract auditor should confirm that the assist audit report will be available in time to meet the needs of the ACO/PCO (see 9-104.2e. & f.).

c. To help ensure timely incorporation of assist audit results into the prime

auditor's report, auditors should notify each other of any impending delays in report issuance.

9-104.6 Subcontractor Proposed Profit **

When incorporating a subcontract assist audit report that contains questioned costs, generally the subcontractor profit associated with the subcontract questioned costs should also be questioned in the prime/higher-tier contract audit report since the subcontract profit represents a cost in the prime or higher-tier pricing proposal.

9-104.7 Differences of Opinion Between DCAA Offices **

Should a difference of opinion arise between offices when performing subcontractor audits, the procedures stated in 6-806 for resolving the difference will be followed.

9-105 Intracompany Proposals Included in Prime Contract Price Proposals **

a. Prime contractor proposals may include proposed costs associated with intra-company/inter-organizational transfers. Table 15-2 at FAR 15.408 provides instructions for submitting proposals when cost or pricing data are required. Section II, Paragraph A, Materials and services, of Table 15-2 requires all work performed by the prime contractor, including any inter-organizational work, be included in the prime contractor's own cost or pricing data and submitted to the Government. The support for inter-organizational transfers should be considered the same as the prime contractor's own cost or pricing data. Therefore, the FAR 15.404-3(b) prime contractor requirement for conducting cost or price analysis of proposed subcontract costs does not apply. The scope of audit of inter-organizational transfers depends on whether the transfers are based on price or cost.

b. Transfers based on price. Auditors should ensure that the requirements of FAR 31.205-26(e) are met (i.e., it is the established practice of the transferring organization to price inter-organizational transfers at other than cost, and the item being transferred qualifies for an exception to the cost or pricing data requirement outlined in FAR 15.403-1(b)). When the pricing is based on adequate price competition, the auditor should review the contractor's market analysis/research and supporting competitive bids to determine whether the proposed amount is fair and reasonable. When the pricing is not based on adequate price competition (e.g., commercial products or commercial services), the auditor should review the supporting documentation (e.g., market analysis/research, sales data, etc.) to ensure that the proposed amounts are fair and reasonable. The auditor should determine the need to verify the sales data to the entity's official sales records. If field pricing assistance is considered necessary, the auditor should coordinate with the auditors at the inter-organizational location to arrive at agreeable field pricing procedures (e.g., AUP). If the prime contract audit discloses that the proposed items are not supported by adequate documentation (e.g., adequate price competition or appropriate sales data) the auditor should evaluate the cost of the proposed transfers using the techniques described below (9-105c) while also ensuring that appropriate adjustments are made to eliminate the intracompany profit included in

the proposed price.

c. Transfers based on cost. Auditors should ensure that the data required by FAR 15.408, Table 15-2, are provided. The auditor should determine the need for assist audit services taking into consideration the business relationship and its potential effect on obtaining a fair and reasonable price. If an audit of the proposed inter-organizational amount is considered necessary based on the documented risk assessment, an appropriate request for assist audit services should be issued to the auditors at the inter-organizational location following the applicable procedures in 9-104, including coordination with the plant representative/ACO.

d. Make-or-buy considerations. Because of the business relationship between the buyer and seller, an inter-organizational transfer may present special procurement risks (see 9-405.2). When inter-organizational transfers are significant, auditors should evaluate the contractor's make-or-buy practices regarding inter-organizational transfers and report any practices that do not result in fair and reasonable prices. Contractors must support and demonstrate that the decision to make the item (i.e., inter-organizational transfer) results in a fair and reasonable price when compared to buying the item from another vendor (also see FAR 15.407-2(f)).

e. Upon receiving a request from the higher-tier plant representative/ACO, the contract auditor at the other segment location will follow procedures in 9-103 and 9-104 as applicable to the intracompany situation.

9-106 Special Considerations - Release of Data to Higher-Tier Contractors **

a. DFARS PGI 215.404-3(a)(iii) governs the methods by which the plant representative/ACO will release field pricing results to the higher-tier contractor. Where the lower-tier contractor consents, the Government will furnish "a summary of the analysis performed in determining any unacceptable costs, by element, included in the subcontract proposal". Absent the lower-tier contractor's consent, the Government will furnish "a range of unacceptable costs for each element".

b. Based on the above, a subcontractor's objection to unrestricted release of the audit report may place an extra reporting burden on the higher-tier plant representative/ACO. Therefore, the contract auditor will determine at the start of the evaluation whether the subcontractor will have any restrictions or reservations on release of the report to the higher-tier contractor. If so, promptly notify the requesting plant representative/ACO to determine whether the proposal evaluation should be continued. The plant representative/ACO, working with the higher-tier contractor, may be able to remove the subcontractor's restrictions or reservations.

c. If the evaluation is completed at the request of the plant representative/ACO despite the subcontractor's objections to unrestricted release of the results, audit report marking and contents will be modified per 10-208.5a(2). In no event may the subcontractor withhold its decision on release of the audit report pending review of the audit results or report contents.

d. Where subcontract proposal audits are made on a recurring basis for the same higher-tier contractor, try to expedite the process by developing a working arrangement for unrestricted audit report release. The arrangement should be documented by the subcontractor's representative, with a copy to the plant representative/ACO and the auditor.

9-107 Written and Telephone Requests for Specific Cost Information on Price Proposals **

9-107.1 Processing Requests for Specific Cost Information **

a. PCO may request specific information concerning a contractor's costs without requesting an audit or evaluation of the contractor proposal. Data to be provided should be readily available from the FAO files or obtainable using a request for information (RFI) from the contractor. Examples of such information include historical incurred costs, recent costs for specific production items or lots; established pricing formulas such as for spare parts or other logistics items; established prices for standard components; and current rates for labor, indirect costs, per diem. When a PCO requests a complete audit and the auditor determines that there is sufficient information available in the FAO files to meet the PCO's request, the auditor should explain the available options to the PCO and make an appropriate recommendation. (See 9-103.1d.). The PCO has the final decision in determining if a full audit is needed to determine cost reasonableness.

b. The PCO may request specific cost information by telephone, mail, fax, or electronically directly from the field auditor. Such requests should receive timely attention. Written requests are sometimes desirable for clarity, but will not be required. See 15-300, and particularly, 15-304.3(c)(1), for obtaining the assistance of a DCAA financial liaison advisor (FLA) in requesting specific cost information.

c. The auditor should ask the requestor for the value, type of contract contemplated and the performance period, in order to provide advice on the usefulness of the data being provided. If the information that the requestor seeks is considered to be of limited or no use in assessing the reasonableness of the proposed costs, the auditor should explain any concerns to the requestor. However, even if the auditor recommends limitations on the use of the information, it must still be furnished.

d. Take care to ensure that contractor data is released only to known authorized Government procurement or contract administration personnel. Within 24 hours, by telephone or in person, provide requested information contained in the files or otherwise readily obtainable.

9-107.2 Written Confirmation of Specific Cost Information **

a. FAOs (other than FLAs) will issue a confirming written response to each PCO request for specific cost information. However, specific cost information submitted to the plant representative/ACO at his or her request need not be confirmed in writing unless the requestor so desires. See 9-107.3 as to information requested by a higher-

tier contractor.

b. The response should be in the form of a memorandum/letter, with "Submission of Specific Cost Information" as the first line of the subject block. Do not use the terms "report," "audit," “examination,” "review," or “evaluation” in the subject. State that the purpose is to furnish the cost information requested, and include applicable cautionary statements per 9-107.1c. Include the following statement:

> *This memorandum is the product of an advisory service. Providing this information does not constitute an audit or attestation engagement under generally accepted government auditing standards.*

Provide a copy of the memorandum to the FLA if any. See Figure 9-1-1 for a sample response format.

9-107.3 Special Considerations - Subcontractor Cost Information **

a. Specific cost information on prospective or current subcontractors will be provided to Government procurement or contract administration personnel at any tier per the preceding paragraphs. Special care must be taken, however, to ensure that subcontractor information is not released by DCAA to an upper-tier contractor without express permission of the subcontractor. In addition, avoid providing assistance to contractors that would not serve a governmental purpose (see 9-106).

b. The necessity for controlling subcontractor information will usually preclude releasing it to higher-tier contractors by telephone or in person unless the subcontractor's authorized representative is present. Where there are continuing requirements for DCAA confirmation of specific cost information of a subcontractor to a particular higher-tier contractor, a local working arrangement may be made to expedite the process. The arrangement should be documented by the subcontractor's representative, with a copy to the plant representative/ACO and the auditor.

c. If the higher-tier contractor prefers to submit requests for subcontractor specific cost information in writing, this should be accommodated. Coordination between the plant representative/ACO and contract auditor at the requestor's plant will establish how such requests are to be processed.

d. The required written response (9-107.2) on subcontractor specific cost information provided to a higher-tier contractor will be addressed to the plant representative/ACO at the higher tier. Distribute a copy to the contract auditor at the higher tier, and distribute a copy to the subcontractor's plant representative/ACO if he or she so desires.

9-108 Audit of Part(s) of a Proposal and Applications of Agreed-Upon Procedures – Price Proposals **

a. Auditors will be responsive to a contracting officer's request for an application of agreed-upon procedures or an audit of part(s) of a proposal provided it clearly establishes the agreed-upon procedures to be applied or parts of the proposal to be examined.

(1) Audits of part(s) of a proposal are examinations conducted to express an opinion on one or more parts of a pricing proposal, but not on the entire proposal. A part of a proposal may be an entire cost element, for example, labor costs which encompass both the labor rates and the labor hours, or only part of a cost element, for example, specified labor rates or material loading factors. Audits of part(s) of a proposal may be conducted on proposals based on certified cost or pricing data and on proposals based on data other than certified cost or pricing data, if that data is cost data (see 9-206b., 9-207c.). Auditors may not examine and express opinions on proposals based on data other than certified cost or pricing data if that data is price or sales data (see 9-207a). The auditor establishes the scope of audit for the part of the proposal under examination. This applies to contemplated awards made on the basis of negotiation as well as source selection awards made in accordance with FAR Subpart 15.3. In establishing the need for examinations of this type, the dollar thresholds by contract type in DFARS PGI 215.404-2(a) apply to the total amount of the contractor's proposal regardless of the dollar value of the elements specified for examination (also see 9-208).

(2) Applications of agreed-upon procedures are performances of procedures agreed upon with the contracting officer at the start of the engagement (see 14-1000). Auditors may perform applications of agreed-upon procedures on proposals based on certified cost or pricing data or on data other than certified cost or pricing data. All proposals supported by pricing and sales data will be evaluated by performing applications of agreed-upon procedures; no examinations may be performed (also see 9-207).

b. When a full proposal has been prepared, the total price proposal package should accompany these requests even though only certain parts of the proposal will be examined or only specified agreed-upon procedures will be performed. Once the field work has begun, auditors should consider the guidance on disclaimer of opinions in 2-102.2 before agreeing to convert an examination to an application of agreed-upon procedures. An examination cannot be converted to an application of agreed-upon procedures merely to avoid disclosing a scope limitation encountered during the examination (e.g., when the examination cannot be completed within the PCO's request time frame).

c. A clear understanding of the requestor's needs is essential (see 9-103.1d.(3)). Discussions with the ACO and/or PCO, should be held in accordance with 4-104 before beginning the audit. When significant contractor deficiencies or system problems exist, explain them and discuss the potential for additional audit coverage. Also convey information about prior contract performance and related cost history which the contracting officer may want to consider in finalizing the audit request. However, the final decision regarding the type of audit to be performed rests with the contracting

officer responsible for negotiating the contract. See 9-103.1d.(3), for guidance when the auditor risk assessment does not coincide with the contracting officer's requested level of services. FLA assistance should be requested. Once the type of audit is established, the auditor should perform the required steps and report the findings. The report will confirm the auditor's advice to the contracting officer regarding the potential impact of known contractor deficiencies or systems problems on areas not audited and the reasons given by the contracting officer for not expanding the audit request.

d. It is important to recognize that the examination of part of a proposal and application of agreed-upon procedures differs from the processing of requests for specific cost information (9-107), wherein the auditor provides information from the audit files without doing an audit of any specific proposal. Paragraph 9-107 prohibits the use of the terms "report," "audit," or "examination" when processing requests for specific cost information.

9-109 Evaluation of Data Rights Price Proposals **

a. DFARS 252.227-7013, "Definitions," states "Developed exclusively at private expense" means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof". The Government is entitled to only limited rights in technical data developed exclusively at private expense (DFARS 227.7103-5(c)). DFARS 227.7103-5(d) states that specific license rates may be negotiated when the parties agree to modify the standard license rights granted to the Government or when the Government wants to obtain rights in data in which it does not have rights.

b. In determining a fair and reasonable price, the contracting officer may request assistance from the DCAA auditor. However, the contractor proposals are not generally supported by certified cost or pricing data; therefore, the auditor's involvement in auditing such proposals is limited. The auditor can verify to the books and records the amount claimed by the contractor as the cost of developing the proposed technical data (previously charged to indirect costs, or direct contract costs). The auditor can also evaluate information regarding sales of the technical data to other parties, if any. If such sales have occurred, the Government should not pay any more than the price paid by the contractor's most favored customer. However, the auditor cannot determine if the costs incurred under a claimed project or account relate only to the proposed data; nor can the auditor determine if there were other costs related to the data that were incurred under additional projects or accounts. The auditor also cannot be reasonably certain as to whether or not there is a specific contract or contracts that required development of some or all of the proposed data (such a determination would give the Government increased data rights and possibly preclude the need to make the purchase).

c. As indicated above, the auditor will be unable to render an informed opinion regarding the reasonableness of the contractor's proposed price for data rights. DCAA effort will normally be limited to the application of agreed-upon procedures related to a cost or price verification. The report will include a statement regarding the adequacy and compliance of the contractor's disclosed accounting practices. Unless providing this information is part of the agreed-upon procedures, these items should be included in the “Report on Other Matters” appendix. However, to be fully responsive to the contracting officer, the auditor should contact the requestor upon receipt of a data rights audit request to discuss the specific agreed-upon procedures to be performed. Guidance for the application of agreed-upon procedures is contained in 9-108 and 14-1000.

9-110 Release of Contractor Proprietary Data to FMS/DCC Customers **

a. The U. S. Government contracting officer is responsible for determining the data to be released to FMS customers and for providing that data to the FMS customer. Auditors shall not provide contractor proprietary information to an FMS customer unless the contracting officer directs such release in writing (e-mail messages will suffice) and the contractor does not object to the release. If the price proposal evaluation is for Direct Commercial Contract (DCC) customers (foreign countries), requested by the DCMA International and Federal Business Division, DoD Central Control Point (DoDCCP), the auditor should coordinate with the DoDCCP and FLA regarding the release of contractor proprietary data to the DCC customer.

b. When the contracting officer or DoDCCP identifies that the price proposal is for an FMS/DCC customer, the auditor should determine at the start of the audit whether the contractor objects to the release of the report to the FMS/DCC customer. Auditors should request at the start of the audit that the contractor provide a written statement either confirming the contractor’s agreement or the contractor’s objection to the release of proprietary data and advise the contracting officer or DoDCCP accordingly. The contractor may not withhold its decision as to the release of its proprietary data pending review of the audit results or report contents. If the contractor objects to the release to the FMS/DCC customer, the third paragraph of the report restrictions should state the contractor’s objection.

c. There may be instances where the FMS/DCC customer requests additional information concerning FMS/DCC prices. The contracting officer or DoDCCP, after consultation with the contractor, may decide that certain proprietary data may be released to the FMS/DCC customer. In this instance, the contracting officer may request that the FAO tailor the presentation of the data in the audit report to satisfy the FMS/DCC customer requests. It is the contracting officer’s decision as to the level of contractor proprietary data to be provided in the report. The tailoring of the presentation of any proprietary data in the audit report in no way affects the scope of audit or results of audit, including the questioned cost. It merely affects the presentation of the data in the audit report.

Figure 9-1-1 Sample Format for Confirmation of Specific Cost Information on Price Proposals **

See the OG "Request for Specific Cost Information" for activity code 25000, for a sample proforma memorandum with language to include in the FAO response to the contracting officer's request for specific cost information.

9-200 Section 2 - Evaluating the Adequacy of Certified Cost or Pricing Data or Data Other Than Certified Cost or Pricing Data in Price Proposals **

9-201 Introduction **

a. This section provides criteria for determining whether the contractor/offeror has submitted adequate certified cost or pricing data or data other than certified cost or pricing data in support of its price proposal. It also provides guidance for deciding what type of audit opinion should be used depending on the nature of the audit request, whether certified cost or pricing data or data other than certified cost or pricing data was submitted by the contractor, and whether the data submitted is considered adequate, inadequate in part, or wholly inadequate.

b. The objective in requiring certified cost or pricing data or data other than certified cost or pricing data is to enable the Government to perform cost or price analysis and ultimately enable the Government and the contractor to negotiate fair and reasonable contract prices.

9-202 Definitions **

a. FAR 2.101 makes a clear distinction between certified cost or pricing data and data other than certified cost or pricing data. Certified cost or pricing data consist of all facts existing up to the time of agreement on price which prudent buyers and sellers would reasonably expect to have a significant effect on price negotiations. Certified cost or pricing data is data requiring certification in accordance with FAR 15.406-2. In addition to historical accounting data, cost or pricing data include such factors as vendor quotations, nonrecurring costs, make-or-buy decisions, and other management decisions (e.g., from minutes of board of directors meetings) which could reasonably be expected to have a significant bearing on costs under the proposed pricing action. Certified cost or pricing data consist of facts which can be verified and should be distinguished from judgments (opinions based on facts) made by the contractor in estimating future costs. (Also see 14-104.) Except as provided in FAR 15.403-1/DFARS 215.403-1, the (sub)contractor must submit a certificate of current cost or pricing data (in the format specified in FAR 15.406-2 certifying that to the best of its knowledge and belief, the cost or pricing data were accurate, complete, and current as of the date of final agreement on price of the (sub)contract or another date agreed upon between the parties that is as close as practicable to the date of agreement on price.

b. Data other than certified cost or pricing data means any type of data that is not required to be certified in accordance with FAR 15.406-2, that is necessary to determine price reasonableness or cost realism. The data may include information on prices, sales, or costs.

9-203 Certified Cost or Pricing Data Requirements **

FAR 15.403/DFARS 215.403 contain the basic requirements related to certified cost or pricing data, including the procedural requirements to be used when submitting certified cost or pricing data to the contracting officer or the contracting officer's representative. Subject to the exceptions listed in FAR 15.403-1/DFARS 215.403-1, the contractor is required to submit certified cost or pricing data whenever a pricing action will be over certain stated dollar thresholds (see 14-103.2). The SF 1411, Contract Pricing Proposal, was eliminated as a result of the FAR 15 Rewrite. The contracting officer may now require submission of certified cost or pricing data in the format indicated in FAR 15.408, Table 15-2—Instructions for Submitting Cost/Price Proposals When Certified Cost or Pricing Data are Required; specify an alternate format; or permit submission in the contractor's own format. The mere availability of books, records, and other documents for verification purposes does not constitute submission of certified cost or pricing data. FAR 15.408, Table 15-2, Note 1, states that if the offeror submits updated data, it must show how this data relates to the proposal.

9-204 Determining Adequacy of Certified Cost or Pricing Data **

a. Evaluate the proposal to determine the adequacy of the certified cost or pricing data for audit purposes, and advise the contracting officer whether the offeror has, in the auditor's opinion, met its obligation to submit adequate certified cost or pricing data (See 9-205). FAR 15.408, Table 15-2, Note 1, states that the requirement for submission of certified cost or pricing data is met when all accurate certified cost or pricing data reasonably available to the offeror have been submitted, either actually or by specific identification in writing. However, neither this FAR provision nor the basic public laws describe in detail what constitutes submission or identification and how much data is enough data. The requirement for submission of certified cost or pricing data continues up to the time of agreement on price.

b. Audit teams should consider using the contractor's completed checklist to help develop an initial adequacy assessment. The audit team should document any apparent deficiencies for discussion at the proposal walk-through. After the walk-through, members of the audit team should consider meeting again to discuss whether the proposal and supporting data were prepared in accordance with FAR 15.408, Table 15-2. Audit teams must exercise professional judgment when deciding whether the contractor provided, or otherwise made available, data required by Table 15-2, and in a manner necessary to conduct a meaningful audit.

c. Adequacy assessment continues throughout the audit process, and not all inadequacies are evident during the planning stage of the audit. Audit teams should be alert for inadequacies that could substantially limit the audit scope throughout fieldwork.

Regardless of when auditors discover a significant proposal deficiency, the audit team should discuss the most appropriate action with the contracting officer in the interest of the Government reaching a fair and reasonable price.

9-205 Deficient or Denial of Access to Certified Cost or Pricing Data **

a. Support from the ACO and PCO is critical in successfully dealing with deficient or denial of access to certified cost or pricing data. These situations are often sensitive/complex and require extensive coordination between DCAA, the requestor, and the contractor. It is essential that the ACO and PCO have the maximum amount of lead time to resolve the conditions.

b. Immediately call the requestor to discuss the situation (see 1-504.4 and 9-310) and follow up with written confirmation . Written confirmation should normally take place within 7 days of receipt of the contractor's proposal. The written confirmation shall include:

(1) a description of the deficient or denied data or records, (include copies of deficient data if requested by the contracting officer),

(2) an explanation of the documentation or contractor action needed to correct the deficient certified cost or pricing data,

(3) an explanation of why the documentation/denied data or records are needed,

(4) the amount of proposed cost considered unsupported due to deficient certified cost or pricing data or to be questioned due to denial of access to records, and

(5) the actions taken by the auditor to obtain adequate certified cost or pricing data. (Further guidance on access to records problems is in 1-504.)

c. There is no set formula for determining when certified cost or pricing data are so deficient as to justify notifying the contracting officer. Depending on the specific circumstances, the auditor must decide whether one item alone or a combination of items justifies a notification. Examples of significant certified cost or pricing data deficiencies that would usually be reported to the contracting officer follow:

(1) Significant amounts of unsupported costs.

(2) Significant differences between the proposal and supporting data resulting from the proposal being out of date or available historical data for the same or similar items not being used.

(3) Significant differences between the detailed amounts and the summary totals (e.g., the bill of material total does not reconcile with the proposal summary).

(4) Materials are a significant portion of the proposal, but the contractor provides no bill of materials or other consolidated listing of the individual material

items and quantities being proposed.

(5) Failure to list parts, components, assemblies or services that will be performed by subcontractors when significant amounts are involved.

(6) Significant differences resulting from unit prices proposed being based on quantities substantially different from the quantities required.

(7) Subcontract assist audit reports indicate significant problems with access to records, unsupported costs, and indirect expense rate projections.

(8) No explanation or basis for the pricing method used to propose significant interorganizational costs.

(9) No time-phased breakdown of labor hours, rates or basis of proposal for significant labor costs.

(10) No indication of basis for indirect cost rates when significant costs are involved.

(11) The contractor does not have budgets beyond the current year to support indirect expense rates proposed for future years.

d. Discuss any potential deficiencies/noncompliances (e.g., FAR, CAS) with the contractor, so they can provide the necessary data to correct the deficiency. If the audit team determines a deficiency or noncompliance exists, plan and perform procedures to develop the elements of the finding necessary to achieve the audit objectives.

9-206 Data Other Than Certified Cost or Pricing Data Requirements **

a. FAR 15.402 contains a hierarchical preference for contracting officers to use in obtaining data to determine price reasonableness. Here, and throughout FAR Part 15, contracting officers are to avoid unnecessarily obtaining certified cost or pricing data and shall not require submission of certified cost or pricing data if an exception at FAR 15.403-1 applies. These exceptions include:

(1) adequate price competition,

(2) prices set by law or regulation,

(3) acquisition of commercial products or commercial services,

(4) a waiver of certified cost or pricing data, and

(5) modifications to commercial contracts or subcontracts.

In addition, certified cost or pricing data shall not be obtained for acquisitions below the simplified acquisition threshold. (14-907 provides additional information on these exceptions.) The contracting officer always has to determine that he/she is getting a fair

and reasonable price. In establishing reasonable prices, the contracting officer shall not obtain more data than is necessary. Nevertheless, the contracting officer is responsible for obtaining data that is adequate for evaluating price reasonableness. The FAR 15.402 hierarchical preference requires the contracting officer to rely first on data available within the Government and then on data obtained from sources other than the offeror. If the contracting officer cannot obtain adequate data from sources other than the offeror, the contracting officer must require submission of data other than certified cost or pricing data that is adequate to determine a fair and reasonable price. At a minimum, the contracting officer must require appropriate data on the prices at which the same or similar items have previously been sold, unless there is an exception at FAR 15.403-1(b) for adequate competition or prices set by law or regulation.

b. Data other than certified cost or pricing data encompasses a broad range of data. FAR 2.101 defines it as "pricing data, cost data, and judgmental information necessary for the contracting officer to determine a fair and reasonable price or to determine cost realism". The data may be identical to the types of data required by FAR 15.408, but without certification. The level and type of data other than certified cost or pricing data obtained varies depending upon whether a cost or price analysis is being performed. (See FAR 15.404-1(b) and (c)) Contracting officers are required to conduct a price analysis even when certified cost or pricing data is not required. A cost analysis may be conducted to evaluate data other than certified cost or pricing data to determine cost reasonableness or cost realism.

c. The auditor's participation, and the amount of support provided, will be at the discretion of the contracting officer. The types of contractor data requested by the contracting officer can be in any form unless the contracting officer considers a specific format essential and describes it in the solicitation. The FAR Rewrite eliminated the optional SF 1448, Proposal Cover Sheet, Cost or Pricing Data Not Required, which previously was available for submission of this type of data. FAR 15.403-5(a)(4) instructs the contracting officer to specify in the solicitation the necessary preaward audit access. Solicitation clauses at FAR 52.215-20 and -21 provide preaward audit access as well.

9-207 Audits of Proposals Based on Data Other Than Certified Cost or Pricing Data **

a. Auditors may not perform examinations and render opinions on proposals that are supported only by sales or pricing data because suitable criteria to judge the price and sales data is not available. The attestation standards require that the auditor conduct the audit only "if he or she has reason to believe that the subject matter is capable of evaluation against criteria that are suitable and available to users". The criteria must be objective, measurable, complete, and relevant to the subject matter. In the past, the FAR contained such criteria. However, changes made to the FAR as a result of the Federal Acquisition Streamlining Act of 1994 and the Clinger-Cohen Act of 1996, deleted the Standard Form 1412 and the specific criteria against which price and sales data could be judged. The price and sales data can assist the contracting officer in determining if the price is fair and reasonable. To assist contracting officers in such

cases, auditors should perform applications of agreed-upon procedures.

b. In performing agreed-upon procedures on proposals supported by price and sales data, the auditor should be responsive to the contracting officer's request for assistance in evaluating the data submitted. Since the effort will vary from procurement to procurement, the auditor must communicate with the requestor to ensure an understanding of the agreed-upon procedures prior to starting the engagement (see 4-104). Once the auditor has completed his/her application of agreed-upon procedures, the auditor should issue a report using the agreed-upon procedures proforma.

c. Auditors may perform examinations (in full or in part) on proposals supported by any amount or quality of cost data. The amount or quality of the cost data is not relevant in determining whether an examination can or cannot be performed. However, it could impact the type of opinion provided. Generally, the criteria in FAR Part 15, while not specifically applicable to data other than certified cost or pricing data, provides a guideline to us in reaching an opinion as to the acceptability of the cost data, and therefore, the requirements of the attestation standards are met. (See 9-208). The attestation standards provide for different types of opinions to address when cost data is sufficient or when it is not sufficient, i.e., unqualified, qualified, adverse, and disclaimer.

d. In establishing assignments to audit proposals based on cost data, it is important for the auditor to understand the level of cost data that the contracting officer required for submission. A disclaimer of opinion in an examination would not serve a useful purpose. Therefore, if the contracting officer has not required a level of cost data that would be sufficient for the auditor to perform an examination and render an opinion, then an application of agreed-upon procedures may be a more appropriate service choice for the contracting officer. The contracting officer may have additional data not provided by the contractor, such as market data, which will be used in making the determination of a fair and reasonable price.

e. As required by 9-103.1d., the auditor should discuss/coordinate with the contracting officer to obtain a clear understanding of his/her needs and the level of cost data that was required by the solicitation. The auditor should then:

- assess the audit risk for the proposal, and
- discuss with the contracting officer the appropriate level of service to be provided considering the auditor's assessed risk level, the contracting officer's needs, and the nature and type of cost data requested by the contracting officer in support of the proposal.

Based on these discussions, the contracting officer will make the final decision on the services to be required, i.e., an examination, an application of agreed-upon procedures, or a request for specific cost information, e.g., a rate check. For unresolved differences regarding the level of services to be performed, FLAs are available to provide assistance (see 9-103.1d.). Auditors must document the working papers for these discussions and describe the basis of the decision underlying the assignment. Once the auditor has completed his/her examination or application of agreed-upon

procedures, the auditor should issue a report using the appropriate proforma.

9-208 Determining Adequacy of Data Other Than Certified Cost or Pricing Data **

a. Review the proposal to determine the adequacy of the data other than certified cost or pricing data for examination purposes. Inadequacies in the data other than certified cost or pricing data can occur when (1) the offeror does not submit the data required by the contracting officer (requirements described in the solicitation) or (2) the contracting officer has not required the offeror to submit a level of data other than certified cost or pricing data sufficient for the auditor to perform an examination and render an opinion on the contractor's compliance with solicitation terms related to pricing.

b. Inadequacies may be attributed to the offeror, when not complying with the contracting officer's requirements. Advise the contracting officer if the offeror has not, in the auditor's opinion, met its obligation to submit the level of data other than certified cost or pricing data required by the contracting officer. Typically, the contracting officer makes this specification in the solicitation. Generally, criteria in FAR Subpart 15.4, while not specifically applicable, provide a guideline to the auditor in reaching an opinion as to the adequacy of the cost data. There are no public laws or regulations that describe in detail how much data is sufficient. Use professional judgment in determining whether the offeror has complied with the contracting officer's requirements.

c. Inadequacies may be attributed to the contracting officer having not required the offeror to submit sufficient data upon which to render an opinion on the proposal or part(s) of the proposal submitted. Auditor determinations of adequacy must relate to the services requested by the customer, i.e., examination of the proposal in total or examination of part of the proposal. If the contracting officer only requests an examination of part of a proposal, then the auditor is only examining the cost data to support that part of the proposal and rendering an opinion on that part of the proposal. If there are inadequacies in the data other than certified cost or pricing data, the auditor should recommend that the contracting officer obtain enough data to protect the Government's interest. The contracting officer will make his/her decision to request additional data based on data in his/her possession, such as market data or prior prices paid to other contractors. As discussed in 9-207e., the auditor should clarify with the contracting officer that an examination is needed before the start of fieldwork, given the level of data that the contracting officer has required.

9-209 Audit of Parts of a Proposal **

A price proposal audit request may call for an examination of the contractor's compliance with solicitation terms related to pricing for specified cost element(s) or parts of cost elements (9-102.1b., 9-108). When this type of examination is conducted, the audit report will clearly describe what parts of the proposal were examined and comment on any known significant estimating system, internal control or accounting system deficiencies. The opinion and report exhibits will address only the part(s) of the

proposal examined.

9-210 Reporting Results of Evaluations of Pricing Proposals with Certified Cost or Pricing Data or Data Other Than Certified Cost or Pricing Data **

Once the auditor has completed his/her evaluation of the certified cost or pricing data or data other than certified cost or pricing data related to a proposal (or to the parts of a proposal requested), the report should include a summary and necessary supporting details for a clear understanding of the results. Any noted inadequacies/noncompliances in the certified cost or pricing data or data other than certified cost or pricing data usually result in questioned, unsupported or unresolved costs. To the extent that fraud, other unlawful activity, or improper practices are found, (see Fig. 4-7-3 for examples of potential indicators), the procedures of 4-702.4 should be followed.

9-300 Section 3 - General Evaluation Procedures for Cost Estimates **

9-301 Introduction **

a. This section presents general guidance on evaluation of contractors' estimates including preliminary survey procedures and overall audit policies. Guidance related to specific cost areas is included in the remaining sections of this chapter (e.g., material cost is in Section 4 and labor cost is in Section 5).

b. This section is also intended to provide a general framework for the discussion on performing contractor estimating system compliance audits included in 5-500.

9-302 Adequacy of Cost Accounting System for Preparation of Price Proposals **

a. When the contract price is to be negotiated based on certified cost or pricing data, the contractor is required to certify that the data in support of the proposal are accurate, complete, and current (see 9-202b and FAR 15.403-4). The contractor's cost accounting system usually is a major data source used in preparing the proposal. In evaluating cost accounting system adequacy, the results of prior audits of materials, labor, indirect costs, budgeting function, etc., should assist in determining whether valid, reliable, and current costs are readily available. When applicable, the contractor is also required to file a CAS Board Disclosure Statement certifying that the practices are complete and accurate as of the day of submission. The contractor is also certifying that the practices used in estimating costs in the proposal are consistent with the cost accounting practices disclosed in the statement. In evaluating the cost accounting system, determine that the actual estimating practices comply with CAS and the disclosure statement (see Chapter 8).

b. To provide data required for cost estimating purposes, the contractor's cost accounting system must contain sufficient refinements to provide, where applicable,

cost segregation for

(1) preproduction work and special tooling,

(2) prototypes, static test models, or mock-ups,

(3) production by individual production centers, departments, or operations-as well as by components, lots, batches, runs or time periods,

(4) engineering by major task,

(5) each contract item to be separately priced,

(6) scrap, rework, spoilage, excess material, and obsolete items resulting from engineering changes,

(7) packaging and crating when substantial, and

(8) other nonrecurring or other direct cost items requiring separate treatment.

c. Accounting data used in developing estimated costs must be valid and reliable. For example, in an accounting system which provides for lot costing, inadequate controls over job lot cutoffs may result in inaccurate lot cost data. This type of error could produce inequitable results when lot cost trends are used in developing or evaluating costs for follow-on procurement. For this reason, an audit of internal controls is important.

9-303 Contractor Estimating Methods and Procedures-Cost Estimates **

a. A contractor's estimating method is influenced by the type of accounting system maintained and the statistical data available. Data supporting individual cost estimates may include:

(1) directly applicable experience for an entire product, such as a follow-on procurement for a product already in production,

(2) directly applicable experience for certain tasks comprising a new procurement similar to those accomplished under previous contracts, and

(3) general or indirectly applicable experience represented by various ratios and percentage factors applicable to a common base.

When experience ratios or percentage factors are used by contractors to derive related estimates for a current estimate, determine whether adjustments were made to reflect differences in complexity, production rate, contract performance period, and other factors which influence the validity of the current estimate.

b. Contractors may employ uniform procedures to prepare prospective price proposals or may justifiably use a variety of methods and procedures. Special problems may require a deviation from established procedures. It may be desirable in certain instances, from both the cost and time standpoints, to use overall or broad estimating procedures, rather than more precise, detailed methods; or it may be necessary to rely on the judgment of qualified personnel in design, production, and other fields. Variations in estimating procedures employed may be attributable to such factors as:

(1) the relative dollar amount of each estimate,

(2) the contractor's competitive position,

(3) the degree of firmness of specifications related to a new item, and

(4) the available cost data applicable to the same or related products/services previously furnished.

c. Regardless of whether the contractor has based an estimate directly on past incurred costs, ensure that cost estimates for future work are based on correction of any past or current inefficient or uneconomical contractor practices. For example, if the proposed engineering or manufacturing productivity is less than that reasonably achievable by the contractor in performing the proposed contract, the cost difference between the proposed productivity and the more likely achievable productivity should be questioned in the audit. Also question the impact of any cost avoidance recommendations using the criteria in 9-308.

d. There are various methods of preparing cost estimates. The most frequently used are the detailed, comparison, and roundtable methods or a combination of the three.

(1) The detailed method requires the accumulation of detailed information to arrive at estimated costs and typically uses cost data derived from the accounting system, adjunct statistical records, and other sources. The information often includes specifications; drawings; bills of material; statements of production quantities and rates; machine and work-station workloads; manufacturing processes, including the analysis of labor efficiency, setup and rework, and material scrap, waste, and spoilage; data determining plant layout requirements; analysis of tooling and capital equipment, labor, raw material and purchased parts; special tools and dies; and composition of the indirect cost pools.

(2) The comparison method is used when specifications for the item being estimated are similar to other items already produced or currently in production and for which actual cost experience is available. Under this method, requirements for the new item are compared with those for a past or current item, the differences are isolated, and cost elements applicable to the differences are deleted from or added to experienced costs. Adjustments are also made for possible upward or downward cost trends.

(3) The roundtable method is used to estimate the cost of a new item when there is no cost experience or detailed information regarding specifications, drawings, or bills of material. Under this method, representatives of the engineering, manufacturing, purchasing, and accounting departments (among others) develop the cost estimates by exchanging views and making judgments based on knowledge and experience. This method has the advantage of speed of application and is relatively inexpensive, but may not produce readily supportable or reliable cost estimates. When this method is used, technical assistance may be required to evaluate the resultant cost estimates.

9-304 Price Proposals Format and Support **

a. Contractor price proposals required by FAR 15.403 /DFARS 215.403-1 to be submitted with certified cost or pricing data must also be submitted with the first page of the proposal including the details specified by FAR 15.408, Table 15-2, if Table 15-2 is being used. Departments which contribute data to the proposal may include, among others, accounting, cost control, budgeting, estimating, planning, purchasing, production control, engineering, drafting, publications, and sales. In addition to the cost data contained in the accounting system, adjunct statistical records and data may be maintained and used in preparing cost estimates. The data may include bills of material, vendor quotations and catalogs, blueprints, value analysis reports, labor efficiency reports, sales budgets, and indirect cost budgets. Contractors may also prepare time series charts, scatter charts, learning curves, and other forms of graphic analysis in developing cost estimates.

b. To expedite the audit process, the Agency has developed criteria which can be used to evaluate the adequacy of the basic supporting data and information submitted with the proposal. This form is available on the DCAA Intranet and the APPS (file name ADEQUACY).

c. When coordinating with the responsible Government procurement and technical representatives, solicit the contractor's cooperation in reaching an informal agreement on types of data and information to be submitted with a proposal or to be made available at the beginning of the audit.

d. If not already provided electronically, request the contractor to submit its proposal and supporting data in electronic media (e.g., CD-ROM, on-line access). The data should be in an acceptable format for processing on DCAA computers.

9-305 Coordination with Contracting Officers **

a. The organizational relationship of auditors with contracting officers and their representatives is discussed in 1-400. A close working relationship is essential for complete and meaningful evaluations of contractors' cost estimates.

b. Contracting officers, through proper coordination and utilization of members of the procurement team (including engineers, lawyers, price analysts, and contract auditors), must ensure that contractors' price proposals have been prepared on a sound basis and are evaluated in sufficient depth to support an informed opinion regarding

reasonableness. The contracting officer is responsible for requiring the timely submission of needed data. Each member of the team is responsible for making recommendations in his or her respective area.

c. The auditor will perform financial evaluations and analyses requiring access to the contractor's records. These analyses will cover both the adequacy of statements of current costs and the adequacy and reasonableness of projections to the extent information relevant to such projections can be obtained from the contractor's records. These evaluations, for example, might cover material prices and quantities; labor hours and rates; and the elements of the various indirect cost pools and their distribution. As used in this paragraph, "records" include, among other things, historical cost records, cost ledgers, purchase orders, subcontractor and vendor quotations, budgets, forecasts, learning curve computations, and similar cost and forecasting data.

d. Administrative procedures to coordinate:

(1) a PCO request for audit or technical review of a prime contractor price proposal or

(2) an ACO, PCO, or auditor request for audit or technical review of a lower-tier contractor price proposal are described in 9-103, 9-104, 9-108, and Appendix B.

e. The manner in which information furnished by the auditor is used in negotiation is the responsibility of the contracting officer. Where the contracting officer fails to accept an audit recommendation and the auditor believes that this action has a significant or continuing impact on the reasonableness of the price or on administration of the contract, and in addition, feels that there is an opportunity for useful corrective action, the auditor should report the situation to his or her supervisor (see 4-803 and 15-600).

f. The type of contract to be awarded and the contract provisions are the responsibility of the contracting officer. When an evaluation of the contractor's operation indicates that the contemplated contract type would not be in the Government's best interest because of the contractor's type of business, accounting system, production of similar items for commercial purposes, or other reasons, recommend that the contracting officer consider a different type of contract. Also advise the contracting officer when proposed contract provisions appear inappropriate or undesirable (see 3-300).

9-306 Use of Specialist Assistance in Price Proposal Technical Evaluations **

a. An important aspect of a proposal evaluation is determining the reasonableness of material and labor estimates. Audit tests of these estimates may require the assistance of a specialists.

b. Specialist assistance is usually obtained when the contractor's support for the cost being audited is not based on accounting or financial data and the auditor cannot efficiently or effectively determine the reasonableness of the costs through alternative means. However, the decision to use specialists should be reached only after considering the type of risk factors described in 9-402.2 and 9-501. These risk factors and others may indicate that specialist assistance is not necessary.

c. Detailed procedural guidance is presented in Appendix B to assist in:

(1) deciding whether specialist assistance is needed,

(2) identifying what type of assistance is needed,

(3) requesting the assistance,

(4) achieving good communications with specialists, and

(5) reporting on the use of specialists or the impact of their nonavailability.

d. Statement on Auditing Standards (SAS) No. 122, AU-C 620, "Using the Work of an Auditor's Specialist," requires auditors to exercise professional judgment when the work of a specialist is required, including a determination of the type of technical expertise needed, and provides guidance on using the specialist's findings. It notes that while the appropriateness and reasonableness of methods or assumptions used and their application are the responsibility of the specialist, the auditor should obtain an understanding of these matters to determine whether the findings are suitable for corroborating the cost representations.

9-307 Incorporating Specialists Evaluations into the Audit Report **

Refer to Appendix B for requirements on evaluating the work of a specialist and referencing the specialists work in the audit report.

9-308 Incorporating Cost Avoidance Recommendations into Audits of Price Proposals **

a. In evaluating the reasonableness of proposed cost elements (including direct labor and material quantities and prices, other direct costs, and indirect costs), consider what it should cost to supply the proposed items assuming the offeror operates with reasonable economy and efficiency. Auditors use contract audit procedures where applicable to assist the procuring contracting officer in meeting his or her obligation (FAR 15.404-1(c)(2)(ii)) to ensure that the effects of any inefficient or uneconomical contractor practices are not projected into future contract prices. Useful tutorial material on this concept is contained in the Air Force Institute of Technology (AFIT) and the Federal Acquisition Institute (FAI) Contract Pricing Resource Guides, specifically volume III.

b. Operations audits performed as discussed in 14-500 provide one key source of information about inefficient or uneconomical contractor practices which should be considered in each proposal audit. The audit program for each price proposal evaluation will provide for assessing each cost avoidance recommendation from operations audits at the contractor, to determine if there is a significant impact on the proposal. As circumstances develop (for example, the contractor implements a recommended cost avoidance or a cost avoidance proves not applicable to a certain product line), the proposal impacts can be expected to vary. Therefore, a reassessment should be made in each proposal evaluation.

c. Any significant impact of cost avoidance recommendations will be reflected as questioned costs in the audit of price proposals when all of these criteria are met:

(1) The findings and recommendations have been discussed with the contractor as provided by 4-304.5. It is not necessary to have issued the operations audit report, or have received the contractor's reaction to the findings and recommendations. However, the proposal impacts should be adjusted as these events occur, if they result in adjustment of the recommended cost avoidance.

(2) The proposal audit has established that the recommended cost avoidance is applicable to the proposed contract performance and is not reflected in the contractor's estimated costs for the proposal. Note that a cost reduction may not be reflected in the proposal even though the contractor has agreed to make the needed improvements, or even if the recommendation has been implemented. Take care not to question costs:

(a) for a time period before the contractor could reasonably achieve the recommended economy or efficiency improvement,

(b) for work areas where the recommendation does not apply, or

(c) for proposal elements that adequately anticipate the expected cost reduction.

Technical assistance (see 9-103 and 9-306) may be needed on these points, especially where the proposed costs are based on assumed future conditions or performance methods that would differ from those in effect when the cost avoidance recommendation was developed.

(3) The impact calculated for the specific proposal reasonably reflects the contractor direct and indirect start-up costs and investment amortization necessary to achieve the recommended cost avoidance, allocated using the contractor's established cost accounting practices.

9-309 Evaluation of Methods and Procedures-Cost Estimates **

a. Evaluation of a contractor's estimating methods and procedures may be divided into two broad areas: first, an evaluation and understanding of the contractor's prescribed methods and procedures; and second, an evaluation and understanding of the methods and procedures actually used in preparing the cost estimate. Work in these two areas may be performed concurrently or separately using, as a reference point, past or current cost estimates prepared by the contractor. In either case, consider the findings in both of these broad areas when planning and developing the audit program.

b. The auditor's objective in these two areas is to examine the available data to the extent necessary to:

(1) form a sound opinion on the validity of the methods and procedures used to develop the cost estimates, and

(2) make sound judgments on the extent and nature of testing to be done in areas requiring further examination.

Also determine whether the results of recent estimating system compliance audits (5-500) indicate that the estimating system is reliable enough to allow reduced audit effort on individual price proposals.

c. The extent of the auditor's evaluation may be influenced by the:

(1) experience gained in comparing earlier estimates with applicable actual costs,

(2) degree to which the contractor's estimating procedures agree with the accounting procedures,

(3) timeliness and depth of evaluation given contractors' estimating methods and procedures by other Government representatives, and

(4) results of operations audits that affect future costs.

d. Recommend changes in estimating methods and procedures when the evaluation indicates existing procedures are inadequate or improper.

9-310 Deficiencies in Specific Cost Estimates **

a. This section deals with deficiencies in specific cost estimates versus deficiencies in overall certified cost or pricing data covered in 9-205. When any of the following deficiencies are encountered and are significant, the auditor should immediately notify both the ACO and the PCO in accordance with the guidance contained in 9-205.

b. Deficiencies in cost estimates can result from a number of things. A few examples of these are:

(1) the use of incorrect, incomplete, or noncurrent data,

(2) the use of inappropriate estimating techniques,

(3) the failure to consider or use all applicable factors or necessary techniques,

(4) the improper use of an estimating technique,

(5) an apparent deliberate concealment or misrepresentation of the data supporting the estimate either in the historical data from prior contracts or in the supporting documents prepared specifically for the proposal (see 4-700), or

(6) the failure to estimate in a manner consistent with the disclosed or established accounting procedures as required by CAS 401 (see Chapter 8).

c. If the proposal method and/or the condition of the underlying data have caused the proposal to not meet the audit criteria (e.g., FAR Part 15 and 31, CAS), the auditor should immediately discuss the potential noncompliance with the contractor to ensure an accurate understanding. If a noncompliance is confirmed, the auditor should plan and perform procedures to develop the elements of the finding that are relevant and necessary to achieve the audit objectives. One of the key elements of a finding discussed in the professional standards is the effect. The effect is a clear link to establish the impact of the difference between the contractor's noncompliant estimate and the estimate made to comply with the audit criteria. Presenting the effect serves to establish the consequences of the finding. In many cases, the effect can be determined by using the proposal data provided by the contractor and applying the applicable audit criteria (e.g., FAR, CAS). For example, a quote furnished by the contractor shows a quantity discount not considered in the proposed value and the auditor concludes that the estimate does not comply with the criteria found in FAR 31.205-26(b)(1). In quantifying the effect, the auditor determines the difference between the proposed value and the quoted price adjusted to reflect the discount, and reports the difference as questioned costs.

Fully developing a finding of noncompliance may require evidence that is neither included with the proposal nor referenced. The auditor can and should request additional documentary evidence considered necessary to fully develop the finding. Table 15-2 at FAR 15.408 (Note 2) provides for access to books, records, documents, and other types of factual data (regardless of form or whether the data are specifically referenced or included in the proposal as the basis for pricing) that will permit an adequate evaluation of the proposed price. The auditor should take the necessary steps to identify and obtain the evidence needed from the contractor, which may include requesting assistance from the ACO and/or PCO. If the contractor denies us access to the needed records, resolution should be pursued following the guidance at 1-504.5.

The auditor is not limited to contractor-furnished data in developing a finding. It may be necessary to obtain data from third-party sources to quantify the effect of the noncompliance. Regardless of the source of the audit evidence, the auditor should make every practical attempt to fully develop the effect of the noncompliance and present the amount in the report Exhibit as questioned costs. Developing the elements of an audit finding that are relevant and necessary to achieve the audit objectives does not impair auditor independence.

When we have made all practical attempts to obtain the appropriate evidence and apply the necessary procedures, yet the auditor is still unable to reach a definitive conclusion on the proposed costs because the evidence is incomplete or otherwise inadequate, the auditor should report any questioned costs identified and report unsupported cost where the evidence remains incomplete or inadequate. This approach optimizes the auditor ability to render an informed audit opinion while providing report users with as much information as possible to assist the Government in reaching a fair and reasonable price.

The auditor should also determine if the identified cost estimate deficiency represents a noncompliance with the estimating system requirements at DFARS 252.215-7002(d)(4). If a noncompliance is confirmed, a separate business system deficiency report assignment should be immediately established. Because of the importance of timely communication of such business system noncompliances, issue the deficiency report as soon as possible. The auditor should prepare the draft report and coordinate it with the contractor at the time the deficiency is found, rather than waiting until the proposal audit is completed. This procedure will provide for issuing the deficiency report at the same time or shortly after the proposal audit report is issued. Give the contractor a reasonable amount of time to comment on the draft report, usually 1 to 2 weeks. If the contractor does not respond within the timeframe requested, the auditor should issue the estimating system deficiency report without the benefit of the contractor's response and explain in the report that the contractor was provided an opportunity to respond but did not do so within the available time. This report should address each noncompliance with the estimating system requirements, including those that represent a significant deficiency/material weakness and those that are less severe than a significant deficiency/material weakness, yet important enough to warrant the attention of responsible contractor officials. Both the deficiency report and the proposal audit report will note that the separate deficiency report is an integral part of the examination engagement and each report will reference the other.

d. A separate deficiency report is not required if the estimating deficiency has been reported previously and the contractor's corrective action is currently being monitored by the Government. However, the explanatory notes of the price proposal audit report should describe the cost impact of any outstanding significant deficiency which affects the proposal.

e. Items that would normally be identified in an estimating system deficiency report when encountered include but are not limited to the following:

(1) The lack of clearly documented policies, standard procedures, and methods covering the contractor's estimating system. (Use judgment on the level of detail needed by small contractors with less than $50 million per year in Government sales derived from proposals based on certified cost or pricing data.)

(2) Nonexistent, out-of-date, or inadequate support for factors used in the proposal (such as raw material, attrition, or normal production allowance).

(3) Failure to perform an adequate evaluation of proposed subcontracts prior to submission of the proposal.

(4) The lack of budgetary data beyond the current contractor fiscal year.

(5) Contractor policies requiring that all production effort remain within the company, regardless of the comparative cost of the effort.

(6) Proposing material on a stand-alone basis without considering other known requirements (spares, related programs, other production lots) that might be ordered at the same time.

(7) Proposing costs based on vendor quotes without considering historical data indicating that prices ultimately negotiated with vendors are lower than the prices quoted.

(8) Not considering or selectively using historical cost experience for similar programs.

(9) Not considering residual inventories.

(10) Applying escalation to firm vendor quotes.

f. This reporting policy does not negate the requirement for in-depth analysis of estimating procedures and practices. Periodic estimating system audits (5-500) are still required. The frequency of these periodic audits may vary dependent upon the items identified in the deficiency reports.

g. When an estimating system deficiency is identified, consider whether the condition is likely to constitute defective pricing if not revised prior to negotiation and agreement on a contract price. If the auditor concludes the cost estimate is not current, accurate, or complete, take the following actions:

(1) Inform the contractor and request it take the necessary corrective action. Seek contracting officer assistance where applicable.

(2) Attempt to obtain the necessary evidence and develop the finding through audit means.

(3) If the contractor does not correct potentially defective certified cost or pricing data and time or resource constraints make it impractical to sufficiently develop a finding (i.e., quantify the impact of the deficiency), the audit report should advise the contracting officer of the inadequacies in the contractor's proposal (also see 9-205).

(4) For all proposals or other audits subject to 10 U.S.C. Chapter 271, complete a Defective Pricing Lead Sheet (delivered in standard audit programs as Administrative Working Paper 03 and available on the DCAA intranet's Audit Programs web page) to rate the proposal for defective pricing potential. After completion of both parts, the original will be placed in the permanent file with a copy remaining in the audit working papers.

9-311 Evaluation of Individual Cost Estimates and Cost Realism **

a. As appropriate, procedures should include:

(1) a review of operations audit findings and recommendations, including cost avoidance recommendations that have an impact on proposed costs (9-308),

(2) an analysis of reports of noncompliance with CAS and FAR Part 31 for possible application of the findings to proposal evaluations,

(3) reviews of available written estimating procedures,

(4) discussions with contractor personnel,

(5) examination of the methods and procedures actually followed,

(6) consideration of the data developed and the manner in which they were used,

(7) comparisons of past cost estimates with incurred costs, and

(8) analysis of cost trends.

b. Obtain information related to the following areas:

(1) The contractor's organization with emphasis on the various segments participating in cost estimating.

(2) The estimating methods and techniques actually used and the nature of the underlying data and judgments supporting each cost element.

(3) The attention given to special terms either contained in the request for proposal or to be imposed by the contract.

(4) The availability and use made of accounting, statistical, budgetary, and other data.

(5) The extent company-wide forward pricing factors are developed and used when preparing the cost estimates and whether these pricing factors are current (see 9-1200).

(6) The graphic analysis (such as time series and correlation charts) used in preparing the estimate.

(7) The degree of consistency between cost classifications used for cost accounting purposes (direct and indirect costs) and those used for cost estimating purposes, and the reasons for significant differences, especially on proposals submitted for like or similar items.

(8) The types of products manufactured and the manufacturing processes involved. This includes information from continuous monitoring of the manufacturing process for the effects of changes and/or modernization.

(9) The reliability of prior cost estimates, including an evaluation of cost areas where significant differences exist between estimated and actual costs and the reasons for these differences.

(10) The contractor's managerial controls and review procedures (to ascertain whether cost estimates were prepared using established company practices).

(11) The relationship of the contractor's technical proposal to the cost estimate. The technical proposal may contain information such as descriptions of the items to be produced, production schedules, cost estimating plans, adequacy of tooling on hand, and the specific instructions furnished each department responsible for preparing cost elements contained in the proposal.

9-311.1 Evaluation of Indirect Versus Direct Cost Classification **

a. Evaluate the contractor's cost classification for consistent treatment of cost elements to determine whether the treatment given direct and indirect costs in estimating parallels the accounting treatment of incurred costs as required by CAS 401 and 402. Inconsistencies should be analyzed and the reasons for different treatment explained. A violation should be reported as a CAS noncompliance.

b. Compare the pattern of direct and indirect cost treatment of the proposal being audited with the current CAS Disclosure Statement and with other proposals recently submitted, particularly when the end items involve similar work. When the estimating basis is different, the difference should be thoroughly explored.

c. Differing direct versus indirect criteria among competitors and the exercise of special allocation provisions of certain Cost Accounting Standards requires that considerable attention be directed to consistency. Although differences are natural consequences of varying circumstances, be careful to avoid perceptions that inconsistent audit applications are causing or contributing to the accounting differences. Price proposal audit reports should clearly identify unusual cost accounting practices having a significant impact, particularly those requiring the use of any special allocation provisions.

9-311.2 Evaluation of Consistency in Estimating and Accounting **

CAS 401 requires that the methods used for estimating costs should be consistent with the methods used for recording or accounting for costs. However, examination might disclose, for example, that while actual costs are used in estimating costs, standard costs are used in recording costs. Under these circumstances, compare the amounts shown for a selected number of items extended at suppliers' actual prices with the amounts for the items obtained by applying established standards and related variances. This comparison should allow the auditor to evaluate the propriety of the cost estimate and to identify possible inequities resulting from using an estimating method which differs from the method used in accounting for costs. Similar comparisons could be made in other cost areas.

9-311.3 Comparison of Estimated and Actual Costs **

When applicable, compare prior cost estimates with costs incurred. The information gained will not constitute conclusive evidence of the reliability of the contractor's cost estimating methods and procedures, but may disclose significant differences between estimated and actual costs. Reasons for the differences should be ascertained and considered in evaluating the reliability of the estimating methods/procedures and in determining the extent of selective tests in areas requiring further analysis.

9-311.4 Cost Realism Analyses **

a. In accordance with FAR 15.404-1(d), cost realism analysis is an evaluation of the overall costs in an offeror's proposal to determine if costs: are realistic for the work to be performed, reflect a clear understanding of the requirements, and are consistent with the various elements of the offeror's technical proposal.

The risk in a cost realism analysis is that the proposed costs are significantly understated as a means to buy-in to the contract. FAR 15.404-1(d) requires that cost realism analysis be performed on cost-reimbursement contracts. Cost realism analyses may also be performed on competitive fixed-price incentive contracts or, in exceptional cases, on other competitive fixed-price type contracts when: the solicitation contains new requirements that may not be fully understood by competing offerors, there are quality concerns, or past experience indicates that contractors' proposed costs have resulted in quality or service shortfalls. Generally, a cost realism analysis is conducted on competitive cost-reimbursement contracts; however, cost realism analysis may be performed on other acquisitions as well, at the discretion of the contracting officer.

Depending upon the type of contract, the purpose of the proposal analysis technique differs for the Contracting Officer. On cost reimbursement contracts, the purpose is to prevent offerors from gaining an advantage over competitors by proposing an unrealistically low estimated cost. In contrast, on fixed price contracts, the purpose is to protect the Government from encountering problems in performance based on an unrealistically low price.

b. The Contracting Officer has the responsibility to determine what assistance is necessary to support them in executing their responsibilities. Therefore, the amount of audit support requested will vary. The contracting officer may request an examination of cost based data to determine if the estimate is realistic (e.g., not significantly understated as a means to “buy into” the program). Before initiating audit services, it is beneficial to hold an initial meeting with the Contracting Officer and all of the audit offices associated with the source selection to ensure the services provided are performed appropriately.

Auditors should appropriately tailor the audit program considering the reduced risk associated with a competitive procurement compared to a single source procurement. Each section of the audit program emphasizes the need for the auditor to understand and test the basis of estimate based on risk. The auditor should design the procedures that will reveal misstatements (e.g., understatements as well as overstatements) and provide the opinion necessary to support the contracting officer’s decision.

In some cases, the contracting officer may choose not to enter into communications or negotiations with the contractor. If the auditor is prohibited from discussing the proposal with the contractor, this prohibition needs to be thoroughly discussed with the contracting officer to determine the type of assistance to be rendered. In this case, the service we provide to assist the contracting officer could be limited to only providing information that is available in the audit files.

9-312 Pre-Established Forward Pricing Rates and Factors **

Formal or informal agreements between contractors and the Government may exist which establish certain cost factors for use in forward pricing actions during specified time periods (such as forward pricing rate agreements and formula pricing agreements- a systematic method of pricing a large volume of small acquisitions). These factors may include indirect cost rates, labor hour rates, material and labor variances, material handling rates, and allowances for scrap and obsolescence. See 9-1200, FAR 15.407-3 and 42.17 for detailed guidance on the audit of forward pricing rate and formula pricing agreements. Periodically determine whether present conditions or intervening occurrences negate current applicability of these types of pre-established cost factors. Circumstances which may adversely affect their continued applicability are changes in business volume, changes in market conditions affecting material or labor costs, savings accruing from cost reduction programs, changes in manufacturing processes used to make products, and changes in the accounting treatment of direct and indirect costs. Board of Directors minutes may document major decisions that affect the above areas (see 14-605a.).

9-313 Evaluation of Cost Estimates After Costs Have Been Incurred **

Under certain circumstances, a contractor's submission is evaluated after all or a portion of the costs have been incurred, such as in the case of pricing proposals, contract status reports, termination claims, and delay claims. In these cases, the audit of the submission should not be limited merely to a comparison with the actual costs. Refer to the appropriate section of CAM for pertinent guidance relative to the specific audit being performed.

9-314 Cost Estimates Based on Standard Costs **

Guidelines for evaluating the validity of historical costs derived by using standard costs and related variances are contained in Chapter 6. The same guidelines apply when standard costs and related variances are used in preparing cost estimates. The basic principle underlying the use of standard costs in estimating is that the standard cost plus the estimated variance must reasonably approximate the expected actual cost.

9-314.1 Estimates Based on Revised Standards **

A contractor may revise direct material and direct labor standard costs, adjusted by estimated variances, to develop direct material and direct labor cost forecasts. Review the basis for revising the standards and decide whether the estimated variances have been properly adjusted to reflect the changes made in the standards. When revised standards reflect only certain historical cost changes, the related variances must be adjusted so that the two combined will approximate the anticipated actual cost.

9-314.2 Variance Analysis **

a. Direct material and direct labor cost variances may be segregated by contributing causes (such as price and rate variances, use and efficiency variances, and variances caused by make-or-buy decisions) and by product lines (with homogeneous products) to produce reasonably accurate prime product costs. When variances are segregated, make comparative studies of historical costs and cost trends. For this analysis, consider employing techniques such as:

(1) time series charts, plotting the percentage relationship of a major direct variance element (material or labor) to related standard costs within the product line, and

(2) improvement curves, plotting the unit or cumulative average direct material or direct labor costs (standards and related variances) for successive quantities of end products produced.

b. Measure the effect of anticipated changes so that historical costs may be adjusted to a basis comparable to that underlying the forecasts. Adjustments may be necessary when the following conditions exist:

(1) The planned production within a product line may be of a continuing nature, whereas, in prior periods, a number of related products were initially put into production causing high start-up prime costs.

(2) The planned sales and production volume within a product line may be substantially higher or lower than previous periods. Changes in volume have an impact on quantity discounts on direct material purchases, direct labor efficiency, and other factors which contribute to variances from standard costs.

(3) The planned reduction in inventories on hand may lead to unusual rework effort and result in high nonrecurring variance cost.

(4) The planned changes in make-or-buy policies for specific components and in the product mix within a product line may have an impact on direct material and direct labor variances previously caused by a volume change.

9-314.3 Variances by Product Line **

When standard costs and the related experienced variances are used by a contractor in estimating prime costs, establishing the reasonableness of the estimates will be difficult unless the contractor's accounting system provides for segregation of variances by product lines. Analyze recorded product line data to determine whether the contractor's estimate reasonably approximates expected actual costs. Available statistical analyses of the variances may provide more appropriate costs for specific products than recorded overall variances. Statistical data of this type may be used to appraise direct material or labor cost estimates based on applying overall variances to standard costs.

9-314.4 Consistency in Using Standards **

When a contractor employs standard costs and submits multiple proposals, the direct material and direct labor standard costs should be consistent for pricing all procurements. Verify that standards are current before they are compared with cost estimates. However, these standard costs are generally not applicable for pricing items:

- not in continuous production,
- being phased out of production, or
- being produced under special production runs.

9-315 Evaluation of Statement of Income and Expense **

a. In some circumstances, the contractor's Statement of Income and Expense should be evaluated for each organizational element comprising a profit center with its own cost estimating and proposal responsibility. Consider for further study and operations audits areas of favorable or unfavorable results of operation. Comparisons should also be made to the contractor's budgets. In considering what areas might warrant further study, attempt to identify those factors which influenced operating results without reflecting on the soundness of the contractor's estimating procedures. Examples of these factors are unusually high profit rates compared with the estimated rates because of the introduction of more efficient production and management techniques, or unusually low rates of profit (or losses) resulting from deliberate low bids because of competition.

b. When a detailed study is to be made, obtain any further segregations of the income and expense statement that are available. This includes segregation by:

- commercial business,
- Government business, or
- major categories of Government business by product, contract, and type of contract.

The analysis should compare the segregated data with the corresponding data shown in sales forecasts, company budgets, and cost estimates used by management in the conduct of the business.

c. Be alert to situations where the profit rates, based on an analysis of financial statements or other summary information, appear to be out of line (e.g., significantly higher than would be anticipated based on the profit rates negotiated). In these cases, determine the reason(s) for the high profits. Consider the results of this evaluation during future proposal, estimating system, and defective pricing audits.

9-316 Evaluation of Contractor Cost Controls **

a. The adequacy and effectiveness of the contractor's system for controlling costs should be evaluated. This is done to decide whether the projected costs are being considered when preparing cost estimates. In other words, are there controls on the cost level used to control operational costs over a selected time period (budgets) and to do they achieve specific cost reductions (efficiency studies)? The evaluation of the cost controls should include the following:

(1) an analysis of the contractor's budget system-preparation of the budgets, operations covered, its use in controlling costs, relationships of the various segments contained in the overall budget, and comparisons of past estimates with costs actually incurred, and

(2) an analysis of past, current, and planned cost reduction programs with emphasis on the nature of the programs, the cost savings achieved, and cost savings goals established for future periods.

b. Many major Government contracts contain clauses requiring an approved Earned Value Management System (EVMS) for performance measurement on selected acquisitions. DCMA is responsible for oversight of the EVMS. The audit team should contact DCMA to obtain the status of the system and any reports that might affect our audits. On proposals expected to result in contracts covered by DFARS clause 252.234-7002, EVMS, when a contractor has proposed to use a previously accepted EVMS, the auditor should provide comments on any deficiencies that are affecting the EVMS on other contracts. These comments should include the impact of other contractor system deficiencies (such as those disclosed during audits of material management and accounting systems). Provide the comments in the applicable note or an appendix to the proposal audit report.

9-317 Evaluation of Cost Reduction Programs **

a. Cost reduction programs include:

(1) value engineering,

(2) work simplification,

(3) design review,

(4) time and motion studies,

(5) organizational structure reviews, and

(6) suggestion and energy conservation programs.

These programs provide for greater economy and efficiency and may also indicate the effectiveness of a contractor's operations. Except for "value engineering," the general nature of these programs is adequately described in the titles. According to FAR 48.101, value engineering is a “formal technique by which contractors may:

(1) voluntarily suggest methods for performing more economically and share in any resulting savings or

(2) be required to establish a program to identify and submit to the Government methods for performing more economically.

Value engineering attempts to eliminate, without impairing essential functions or characteristics, anything that increases acquisition, operation, or support costs”.

b. In evaluating cost estimates, determine whether the contractor has considered specific cost reductions anticipated resulting from cost reduction programs other than value engineering. FAR Part 48 contains a discussion of the contract provisions that cover value engineering incentives and value engineering program requirements and their impact on pricing.

9-318 Evaluation of Plans for Plant and Facility Improvements **

Some contractors are accomplishing substantial technological advancements on the factory floor. Improvements in the contractor's plant and facilities frequently generate substantial reductions in labor and material requirements. Evaluate the contractor's plans and budgets for improvement of plant and facilities (see 14-600) during the proposed contract period and ascertain whether applicable production cost reductions are reflected in the cost estimates. Evaluate the data submitted by the contractor to justify any new or additional Government-furnished equipment or other facilities scheduled to be provided and the timetable for implementation of new equipment and manufacturing processes. The contractor's justification for these items normally will provide a good basis for determining whether applicable cost reductions are reflected in new work cost estimates.

9-400 Section 4 - Evaluating Direct Material Cost Estimates **

9-401 Introduction **

a. This section presents guidelines for evaluation of direct material cost estimates.

b. Direct material costs may include estimates for raw materials, purchased parts, subcontracted parts, packaging, freight, interdivisional transfers, vendor tooling, and other material directly identified with the engineering effort or the manufacture of a product. If the costs of scrap, spoilage, rework, process loss, obsolescence, and similar items can be reasonably estimated through the development of forward pricing factors or other means, then these should also be charged direct. It is important, however, to ensure that the method of estimating and costing these items complies with the applicable Cost Accounting Standards (see Chapter 8).

c. When direct material cost estimates are evaluated, the auditor should consider both the validity of the estimated prices and the quantitative and qualitative material requirements. Appendix B and 9-306 provides detailed guidance on the technical review aspects of material cost estimates and the procedures for requesting assistance.

9-402 Direct Materials Estimating Methods **

a. The method of estimating direct material cost depends on the type of accounting and statistical data available to the contractor and the bases for this data. The available data may be based on directly applicable experience for:

(1) an entire product, as in the case of follow-on procurement, or

(2) certain parts and components comprising a product, as in the case of an estimate for an item substantially similar to or related to an item previously produced.

The data may also be based on general production standards or on previous production experience. Examples include factors like direct material cost per pound of product and ratios of direct material to direct labor for similar products.

b. The four basic procedures for estimating direct material are:

(1) estimate quantity requirements,

(2) determine raw material requirements, convert measurements as necessary, and estimate actual yields,

(3) estimate current prices, and

(4) adjust estimated prices for cost trends and quantities and project total cost.

Note that prior to applying these procedures, the auditor should analyze individual material estimates from a qualitative perspective to ensure that the proposed material effectively satisfies the Government's requirements.

9-402.1 Source of Material Cost Estimates **

Information on which to base direct material cost estimates usually may be obtained from one or a combination of the sources listed below:

(1) Cost records, appropriately adjusted, for the last completed contract.

(2) Cost records for the last lot or a selected number of lots for the last completed contract.

(3) Experienced direct material costs, plotted on an improvement curve, for the same or similar product or components.

(4) Priced bills of material.

(5) Appropriately adjusted, priced bills of material for a related product.

(6) Direct material costs incurred for a pilot run of a prototype model.

(7) A prior cost estimate adjusted to reflect current needs.

(8) A budget prepared for the period during which the same or similar item was produced.

(9) Experience factors and ratios established for related or unrelated products of similar size and complexity.

(10) Operations time sheets.

(11) Engineering drawings.

9-402.2 Extent of Auditor's Evaluation **

a. Direct material cost estimates should be evaluated based on the validity of the estimated prices and the quantitative and qualitative material requirements. Factors which influence the scope of audit include:

(1) the materiality of the proposed direct material costs,

(2) the adequacy of the contractor's material related certified cost or pricing data,

(3) the adequacy of the contractor's estimating procedures for determining material requirements,

(4) the extent to which actual estimating and material requirements practices follow established procedures,

(5) the contribution of other Government representatives in evaluating the quantitative and qualitative requirements for a specific proposal, and

(6) the results of operations audits of material related functions.

The contractor's classifications of direct materials in cost estimates must be consistent with classifications in the accounting system, as required by Cost Accounting Standard 401. Inconsistencies should be brought to the contractor and the contracting officer's attention so that appropriate action can be taken.

b. Whenever the auditor needs the assistance of a specialist to form an opinion on the measurement of costs, such assistance should be obtained. The auditor should:

(1) identify the specific type of assistance needed,

(2) communicate with the technical specialist, and

(3) assess the impact of technical specialist findings in formulating the audit opinion (see 9-306 and Appendix B).

9-403 Price Proposals Bill of Material Evaluations **

a. A properly prepared bill of material (BOM) generally will provide a sound basis for estimating direct material costs. The BOM will usually contain a detailed listing of the types and quantities required for raw material and for each component and part. It may also include allowances for expected losses; defects; spoilage during processing; scrap generated; common supply items such as welding rods, nuts, bolts, and washers; or other additives to the basic material requirements. When it contains only the basic material requirements, loading factors stated as a percentage of material costs may be applied to provide for expected costs of material losses and common supply items. The auditor needs to ensure, however, that the estimated costs supporting these loss allowances or loading factors are not also included in the contractor's indirect cost estimates in noncompliance with CAS 401 or 402 (see 8-401 and 8-402).

b. At some contractor locations there may be both an engineering and manufacturing BOM. The engineering BOM will list all parts required to produce the end products. However, engineering may be unable to estimate certain quantity requirements such as length of wire. In such a case, manufacturing will develop detailed material requirements in the form of a BOM that will be used as a manufacturing aid. The auditor can use this to further define the material requirements of the engineering BOM.

c. Bills of material at large contractors are usually loaded into computer data bases which provide the capability to request information in many formats. Additional information such as description, where-used, item number, and dollar value may also be available in the data base.

d. A BOM can usually be provided for an end product or any subassembly. The most common sorts are:

(1) Part Number Ascending Order. This bill of material is sorted by ascending part number showing total quantity required for each part of an end item. A detailed report may give further information including where the part is used (see B-408.3).

(2) Assembly/Subassembly (Christmas Tree). This BOM is hierarchical and lists major assemblies followed by the various levels relating to subassemblies (see B-408.3).

9-403.1 Evaluating Quantity Estimates **

a. When the estimate relates to a follow-on procurement and prior experience exists, the audit should include, but not be limited to, the following procedures:

(1) Obtain the engineering BOM that supports the contractor's proposal. An engineering BOM is preferable to a manufacturing BOM because of its correspondence to engineering drawings. If the auditor intends to select a manual sample of parts, an ascending/descending BOM with prices is usually necessary. Higher assembly information must be part of this BOM, or available in a supplemental document to ensure that the lower level parts are identified and verified to their appropriate higher assemblies. For a computer based bill of material, the part numbers may be in ascending/descending order or assembly/subassembly order. The preferred method for sample selection is to use one of several available software tools including DATATRAK III.

(2) Determine that the bill of material is current and that, based upon the applicable specifications, it reflects all anticipated changes in the unit quantitative requirements.

(3) Prepare a sampling plan. Select for evaluation either a random stratified sample or dollar unit sample of parts. Information on performing a sample is contained in the Variable Sampling guidebook located on the DCAA intranet. Although the sample should be designed to validate bills of material quantities to engineering drawings, the sample should also be used to validate pricing to the extent that this is practical.

(4) Obtain detailed engineering drawings for the sampled parts. Separate engineering drawings may not be available for purchased parts, but may be available as part of the next higher assembly drawing. Also, an initial BOM may be incomplete and contain undefined parts which do not have engineering drawings. A large number of undefined parts usually indicates a need for technical specialist assistance.

(5) Compare sample part quantities and specifications (dimensions, tolerances, etc.) on engineering drawings to the BOM and note any discrepancies.

(6) Identify how the contractor calculated part quantities and the number of parts to be produced from raw material. Pay special attention to the contractor's use of "rounding" when calculating raw material factors. Verify the accuracy of the contractor's calculations by working through several part estimates and note any discrepancies.

b. When the estimate relates to a completely new product, the contractor may have only rough sketches or design prints for a prototype. The types and quantities of required materials may have been developed primarily based on the personal experiences and judgments of contractor personnel. Such estimates should be given close scrutiny because errors that duplicate material items are often found. Estimates for completely new products often require the use of technical specialists (see 9-402.2b).

9-403.2 Using Operations Time Sheets **

An operation time sheet (see B-408.4) usually includes a description of the discrete manufacturing operations and associated times necessary to build the part, and may disclose material quantity, tools, fixtures and labor standards. They are a main source of labor information as discussed in 9-504.4. However, they may also be used as a substitute for a BOM for cost estimating purposes. Care should be taken when operations time sheets are used in conjunction with bills of material to ensure that costs are not duplicated.

9-403.3 Using Engineering Drawings **

Material requirements are normally determined from engineering drawings. These drawings illustrate and provide essential information needed to design and manufacture a product. This includes:

(1) physical characteristics,

(2) dimensional and tolerance data,

(3) critical assembly sequences,

(4) performance ratings,

(5) material identification details,

(6) inspection tests,

(7) evaluation criteria,

(8) calibration information, and

(9) quality control data.

9-404 Evaluating Contractor's Direct Materials Pricing Procedures **

9-404.1 Sources for Pricing **

Sources for pricing components include:

(1) standard costs,

(2) previous purchase order prices adjusted for quantity differences,

(3) current vendor quotations, and

(4) current order placement prices. In evaluating the contractor's pricing procedure, consider the following:

a. The sources of arriving at the prices used for each element comprising the total direct material estimate or the priced BOM.

(1) When the source is standard costs, determine whether the variance factor applied is realistic compared to past and current experience, and probable future trends.

(2) When prices are developed from previous purchases, identify the source of the prices (stock record cards or purchase orders) and ascertain if the prices used are current and appropriate for the estimated quantity required.

(3) When prices are developed from current vendor quotations, determine the extent of bid solicitations and the reasonableness of prices submitted.

(4) Contractors generally maintain inventories of parts and components which are incorporated into regularly manufactured products. Inquiries should be made to ascertain the extent that available inventory has been considered in deciding the source of proposed material. When parts included in the inventory are to be used in the fabrication or production of items included in a proposal, verify the unit costs applicable to the inventory. Procedures for verifying inventory costs are included in 6-300.

(5) Regardless of the source used, compare the prices in the proposal with:

(a) those quoted by competing suppliers for comparable quantities,

(b) recent quotations for the same or similar items,

(c) costs incurred by the contractor for the same or similar items, and

(d) the cost of any available inventory not specifically identified to other contractual requirements.

b. The type of subcontract or purchase order to be awarded. When conditions warrant the use of a cost-type or fixed-price redeterminable subcontract or purchase order, evaluate the price which the contractor has included in the estimate. Assistance of the auditor at the subcontractor location may be needed in making this evaluation (see 9-104).

c. The consistency with which the material pricing sources are used. When a variety of material pricing sources are used in costing the BOM, consistency in estimating procedures is not possible unless there are guidelines which closely define the governing factors. This becomes apparent when the contractor has a recurring, substantial dollar proposal volume. Closely scrutinize the propriety and reasonableness of material price estimates when there are inconsistencies in estimating procedures. Be alert for violations of the applicable Cost Accounting Standards.

9-404.2 Effect of Purchasing Procedures on Prices Paid **

Economical buying practices generally result in obtaining the lowest prices for maximum quantities consistent with need, required quality, and delivery schedules. The contractor's purchasing practices (see 5-1302) should be tested for reasonableness of quantities, quality, and the prices of direct materials, not only for parts in inventory, but also for parts required to be purchased under the proposed procurement. When current vendor quotations are used to support the contractor's direct material cost estimate, determine the extent to which the contractor followed economical buying practices. Vendor quotations should be examined to determine whether they were submitted in response to the procurement under consideration, and whether prices are appropriate in light of required quantities and specifications. When effective competition does not exist, as in the case of sole source vendors, the contractor's source for estimating material prices should be given close analysis.

9-404.3 Using Previous Purchase Order Prices **

The contractor may use prices paid for the same items in previous purchases to estimate the material cost of follow-on procurements when current vendor bids have not been obtained. Determine the extent to which:

(1) recent purchase orders were selected to obtain applicable prices and adjusted, where necessary, to reflect price trends,

(2) purchase order prices selected are for comparable quantities required for the follow-on procurement,

(3) quantity discounts were given when increased quantities are to be purchased, and

(4) consideration has been given to eliminating high start-up costs.

9-404.4 Pricing of Company-Produced Components **

Under certain circumstances, contractors may propose materials and supplies based on price rather than cost when they are sold or transferred between any division, subsidiary or affiliate of the contractor under common control. In these cases, ascertain whether the specific circumstances meet the criteria described in 6-313. If the audit discloses items that are improperly based on price rather than cost, appropriate adjustments should be made to eliminate the intracompany profit (plus any inapplicable indirect costs).

9-404.5 Pyramiding of Costs and Profit on Material Purchases **

a. Most major programs require the use of subcontractors, not only to obtain facilities and skills which may not be available within the upper-tier contractor, but to broaden the procurement base and to meet requirements for utilizing small business. However, the auditor should be alert to instances where a proposal may be excessive because of unreasonable pyramiding of costs and profits. This may occur between divisions, plants, or subsidiaries of a company or between subcontractors and upper-tier

contractors. The contractor's procurement program should be reviewed to determine whether the planned subcontracting pattern is reasonable. The auditor should not limit his or her considerations to first-tier subcontracts, but should coordinate with auditors at subcontractor locations to disclose unreasonable pyramiding of costs or profits at any of the levels of the procurement chain where significant costs are involved.

b. Situations likely to result in excessive or unreasonable pyramiding of costs include the following (where questionable practices seem to exist, consult with Government technical and procurement personnel as appropriate):

(1) Intracompany transactions through which items are charged to the contract at a list price (see 9-404.4) or at a cost plus unnecessary or unreasonable handling charges.

(2) Purchases from a subcontractor who acts merely as an intermediary/agent rather than as a manufacturer. Items may be drop-shipped direct to the upper-tier contractor's plant or they may pass through the subcontract plant for minor additions, changes, or testing which could be done more economically and as well at a lower or an upper-tier contractor's plant.

(3) Purchases by an upper-tier contractor of items which are identical with or similar to items being purchased by the Government and which could more economically be supplied as Government-furnished property.

c. When proposed material costs include loadings added by the prime contractor and upper-tier subcontractors, and the added amounts appear to be disproportionate compared to their planned work contribution, the audit report should comment on the increased costs and profit attributable to the pyramiding. The report should state:

(1) the estimated savings which will result by eliminating the intermediary and shortening the procurement chain,

(2) the considerations underlying the treatment of the direct procurement as Government-furnished items, and

(3) the degree to which the component or item involved can be treated independently from the system for which it is to be procured.

9-404.6 Subcontract Decrements **

a. Vendor quotations and contract prices are frequently subject to change. These changes occur when:

(1) vendors agree to make voluntary price adjustments and refunds in the event purchases exceed a predetermined level,

(2) vendors agree to reduce a competitive quote, or

(3) profits become excessive.

If significant amounts of these changes are attributable to inefficient prime contractor purchasing practices, the auditor should recommend corrective measures be taken including:

(a) improving the prime or upper tier subcontractor's purchasing practices, and

(b) recognizing the impact of the changes in cost proposals.

The auditor at the prime or upper tier subcontractor level should also advise the auditor at the (lower) subcontractor level to reappraise the subcontractor's estimating procedures.

b. Information concerning patterns of reductions from quotes to actual prices paid may be useful in evaluating a cost estimate. Information about historical reductions is cost or pricing data and should be disclosed to the Government. In addition, DFARS 252.215-7002(d)(4)(ix) requires contractors to use historical experience when appropriate. Contractors should, therefore, analyze the pattern of historical reductions, determine its applicability to the subject procurement, disclose the analysis, and reduce proposed cost, if appropriate. None of these steps, however, relieves the contractor of its responsibility for performing cost or price analyses as required by FAR.

c. If there is a pattern of price reductions, review the prime contractor's or upper tier subcontractor's analyses of quotes and subcontract prices. Determine whether the contractor considered the pattern in estimating material and subcontract costs. Evaluate the method used to analyze the price reductions. The contractor may apply a decrement to cost estimates based on patterns that are company-wide, program-wide, contract specific, or vendor specific. Ascertain what cost data were used to develop the decrement factor and confirm that the factor is properly and consistently applied to vendor-quoted base costs. For example, if the decrement factor was developed using both competitive and noncompetitive quotes, the factor should be applied to both competitive and noncompetitive quotes. The data used to develop the decrement should be accurate, current, and representative. If the contractor has failed to use experience adequately in estimating costs, it may be necessary to develop a decrement for use in evaluating material estimates.

9-404.7 Using Trade Information **

Regularly published trade information may be useful when evaluating the reasonableness of estimated prices. Information on industry-wide cost trends may also be useful, especially when contractors' estimates for follow-on procurement include increases in direct material prices based primarily on unsupported percentages. Information published in financial and industry papers usually reflects prices of basic commodities, trends and forecasts of wage increases by industry, and opinions by experts on economic trends. Trade publications can be of assistance in evaluating the contractor's material price estimates for aluminum and steel, especially when purchase orders are "future" commitments based on prices for the delivery date. Follow-on orders for large quantities may result in prices lower than are indicated by general market conditions discussed in trade publications because of quantity discounts or improved vendor efficiency.

9-404.8 Use of Consolidated Material Requirements **

a. DFARS 217.7503 and PGI 217.7503 provide for an acquisition strategy entitled, Spares Acquisition Integrated with Production - SAIP where spare part orders are to be combined with prime contract orders for production components to achieve lower bill of material component unit prices. Furthermore, a review of previous direct material purchases (see 9-404.3) may disclose that bill of material components are required for two or more contractor programs. When appropriate, proposed bill of material component unit prices should be based on the total production schedule quantity requirements (i.e., for both production and spares).

b. When SAIP requirements are utilized by the contracting officer, the auditor may be requested to, as part of his/her overall proposal audit, ascertain if the contractor or subcontractor has complied with the SAIP agreement. An evaluation, as determined by the auditor, will be conducted to ensure that prices for spares and identical items used in the production of end items reflect savings as a result of combined ordering.

9-405 Make-or-Buy Decisions – Direct Material Cost Estimates **

A contractor must decide whether to make-or-buy parts and components. Responsibility for this decision is usually delegated to key personnel from the production, tooling, engineering, accounting, production planning, and purchasing departments. Factors considered in arriving at a make-or-buy decision include:

(1) previous experience,

(2) future requirements,

(3) relative costs,

(4) market conditions,

(5) delivery schedules,

(6) available capacity,

(7) finances,

(8) staffing,

(9) subcontractors' capabilities, and

(10) availability of materials.

(11) evaluation factors described in the solicitation

9-405.1 General Considerations **

A contractor's make-or buy decisions may have a significant impact on direct material cost estimates. In determining the scope and extent of the proposal audit, the auditor should consider DCMA's assessment of the contractor's make-or-buy policy as part of its Contractor Purchasing System Review (CPSR). The auditor is responsible for obtaining an understanding of the contractor's policies and procedures, and determine the scope and depth of examination required for the make-or-buy decisions.

9-405.2 Special Considerations in Make-or-Buy **

Be alert to special factors involved in make-or-buy decisions. These include:

(1) intracompany procurement,

(2) changes in make-or-buy,

(3) simultaneous actions involving both the making and the buying of the same parts, and

(4) an extensive time lapse between the proposal submission date and the actual contract date.

These factors are discussed below.

a. Intracompany Procurement. An item or work effort to be produced or performed by the prime contractor or its affiliates, subsidiaries or divisions is a “make item” (FAR 15.407-2(b)). A transfer of commercial products or commercial services between divisions, subsidiaries, or affiliates of a contractor is considered a “subcontract” except as used for the make-or-buy decisions (FAR 15.401). Evaluate make items involving significant direct material estimates of the contractor and its subsidiaries, affiliates, and divisions. The cost estimates for make items should not include charges by both the affiliate and the contractor in areas such as engineering, field service, and product warranty. Special attention must be given to determining whether contractor practices permit affiliates to obtain business by meeting the lowest bid submitted by outside vendors. This practice may not result in fair pricing and may reduce and tend to eliminate competition on future procurements. The audit report should include comments on any intracompany procurement practices which do not result in fair prices.

b. Change in Make-or-Buy. It is not unusual for a contractor to change make-or-buy decisions. When a contractor's plant facilities or those of its affiliates are not operating at full capacity there may be an incentive for the contractor to change from a decision to buy to a decision to make. A change from buy to make may require additional engineering, tooling, and starting load costs; additional labor operations with related indirect costs; and the elimination of the vendor price for the component. Conversely, a change from make to buy will result in the addition of a vendor price for the component and the elimination of direct labor and related overhead. In evaluating the estimated cost, determine whether the contractor has properly reflected the offsetting effect of changes in past make and buy patterns on all related cost elements in the proposal. If a proposed change in the make-or-buy decision results in a significant increase in cost to the Government, evaluate the contractor's justification for making the change. The auditor may ascertain the extent to which make-or-buy decisions are changed, by comparing ratios of direct material to direct labor on current and prior procurements for the same or similar products. Discussions with contractor personnel responsible for make-or-buy decisions should provide the auditor with useful information. This information should also be noted for follow-up in subsequent operations audits of the area.

c. Simultaneous Actions Involving Both the Making and the Buying of the Same Parts. When an evaluation discloses that a contractor makes and also buys the same part or component, determine the reasons for this practice and the propriety of the cost basis used for the material included in the proposal.

d. An Extensive Period May Elapse Between the Proposal Submission Date and the Contract Date. If requested by the contracting officer to provide negotiation support, consider determining through reexamination of data relating to programs whether significant changes have occurred in make-or-buy decisions during the interim period and whether these changes will affect estimated costs.

9-406 Evaluating Major Subcontract Proposal Cost Estimates **

When the decision is to buy instead of make, subcontract costs will be reflected in the direct material portion of the contractor's cost estimate. In evaluating subcontract estimates, consider the contractor's procurement procedures, including controls exercised over subcontractors' costs and the type of subcontract or purchase order to be issued by the prime contractor. The prime contract auditor will specifically evaluate each pricing submission and available data to determine the need for any subcontractor/intracompany assist audits as discussed in 9-104 and 9-105.

9-406.1 Contractor's Procurement Procedures **

a. Procedures employed by a contractor for evaluating subcontractor estimates may include using engineering departments to prepare independent estimates for comparison with subcontractors' price quotations and field audits of subcontractors' quotations by company audit personnel or independent public accountants. The audit team must gain an understanding of the contractor's subcontract selection and pricing procedures when planning the extent of testing and evaluation. The most recent Contractor Purchasing System Review (CPSR) may provide information to assist in this understanding (see 5-1302).

b. The contractor is usually concerned with obtaining the best subcontract prices available so that its proposed price will be competitive. However, if the prime contract is noncompetitive, give special attention to determine if the contractor's procedures adequately demonstrate that subcontract prices are reasonable.

c. The contractor is required to conduct appropriate cost or price analyses that demonstrate the reasonableness of the proposed subcontract values, and is required to include the results of these analyses with its own certified cost or pricing data (see FAR 15.404-3(b)). The contractor should have procedures in place to identify all subcontracts for which it must obtain and analyze certified cost or pricing data, and if necessary, data other than certified cost or pricing data. Regardless of the data provided, if the audit team selects a subcontract to apply tests of details, the audit team should determine if the analyses sufficiently demonstrate that the proposed price is reasonable based on the facts and circumstances. Often, this will require inquiry of the steps taken by the contractor to evaluate the price/cost as well as inspection of supplementary documentation (e.g., pricing of similar items, independent cost estimates prepared by the contractor, comparison of proposed rates to the subcontractor's historical rates, etc.).

If the contractor has not completed its required subcontract analyses, perform the following:

- Obtain and document the contractor's explanation.
- Inquire about the contractor's plan to complete the required analyses, obtain any supporting schedules, and determine the reasonableness of the plan considering the facts and evidence (e.g., whether the contractor regularly meets its scheduled completion dates, etc.).
- Consider historical negotiation reduction factors (9-404.6).

- Evaluate other actions by the contractor to assess the prices that its vendors have proposed and perform alternative procedures to establish a reasonable basis for the audit opinion.
- Question proposed subcontract costs based on audit procedures applied.

If the contractor has not performed the required cost or price analyses and does not have a reasonable explanation and/or a reasonable plan to furnish the completed analyses prior to negotiations with the government, an estimating system deficiency exists (see DFARS 252.215-7002(d)(4)(xv)).

d. When a contractor's basic procedures are deficient, actual procedures do not conform to prescribed procedures, or when current data is not sufficient to provide a satisfactory basis for evaluating the reasonableness of the subcontract estimate, further testing of major subcontracts may be necessary. This may be done by reviewing the available data at the contractor's plant or by arranging for an assist audit of the subcontractor's submission (see 9-104.2).

e. When there is history on similar subcontracted components, the contractor should analyze its experience, determine the applicability of its experience to the subject procurement, disclose the analysis, and reduce its proposal, if appropriate. Failure to adequately use experience should be reported as an estimating system deficiency (see DFARS 252.215-7002(d)(4)(ix)). For purposes of the price proposal audit, the audit team should question the unreasonable portion of the proposed subcontract costs by evaluating evidence using validated third party sources (e.g., FedMall, WebFLIS) and/or evidence found in the contractor's purchasing department files (e.g., previously negotiated subcontract price, relevant quotes for same or similar items, paid invoices, etc.). The audit team may also determine the impact of unreasonable proposed subcontract costs using the results of prior assist audits.

9-406.2 Significance of Type of Subcontract or Purchase Order **

The type of subcontract to be awarded should conform with the provisions of FAR Part 16 as they apply to prime contracts. The type of subcontract should influence the direction and scope of the audit work to be performed. For example, if a redeterminable or incentive type subcontract is contemplated, ascertain if the prime contractor has included anticipated subcontract ceiling prices or target prices in the proposed direct material cost. Subcontract ceiling prices do not constitute valid estimates due to the possibility that a lower price may ultimately be negotiated.

9-406.3 Long Term Agreements **

a. In evaluating proposed subcontract costs, auditors may identify an estimate based on a Long Term Agreement (LTA). A LTA is an agreement entered into between a prime contractor and a subcontractor to establish pricing for future purchases of specified items. LTAs are an acceptable pricing method since FAR allows a prime contractor to reach price agreement with a subcontractor in advance of agreement with the Government. It is not uncommon for contractors to enter into an LTA with a subcontractor in advance of a specific Government Request for Proposal (RFP). A LTA

can benefit the Government by providing better subcontract pricing due to a more stabilized business volume and reduced acquisition cycle times. The existence of an LTA negotiated prior to a prime contract award does not relieve the prime contractor from obtaining certified cost or pricing data prior to subcontract award when required by FAR 15.404-3(c). If the subcontract value under the LTA is expected to exceed the cost or pricing threshold and none of the exceptions in FAR 15.403-1(b) apply, the contractor must obtain and analyze certified cost or pricing data as of the date of LTA execution.

b. Auditors should evaluate the reasonableness of the proposed subcontract cost based on the LTA when certified cost or pricing data is required by verifying that:

- The contractor has established practices for obtaining and analyzing certified cost or pricing data from subcontractors, (9-406.1), and
- The subcontractor submitted adequate certified cost or pricing data in support of the LTA (FAR 15.403-4(a)(1)(ii)), and
- The contractor completed an adequate cost or pricing analysis (CPA) of the subcontractor certified cost or pricing data (FAR 15.404-3(c)), and
- The contractor has demonstrated the continuing reasonableness of the LTA price as included in the current proposal.

c. Auditors will determine if assist audit services are needed considering the factors in 9-104.2b (e.g., significance of proposed subcontract costs, business relationship of prime and subcontractor, etc.). If requested, the subcontract auditor will generally review the subcontractor's certified cost or pricing data as of the date of the LTA execution. However, the subcontract auditor must also consider any known factors that may impact the reasonableness of the LTA's price relative to the current prime contractor proposal. For example, the subcontractor may have made significant changes in the manufacturing process that were not considered in the original LTA pricing.

d. If an exception to certified cost or pricing data applies (e.g., adequate price competition commercial products or commercial services, see FAR 15.403-1(b)) yet the LTA prices are based on cost data; the auditor should evaluate the contractor's analysis following the same general guidelines discussed in b above. However, if the LTA was awarded requiring no cost based data, the auditor should review the contractor's price analysis to ensure that the LTA pricing is fair and reasonable. For example, on competitive acquisitions, auditors should evaluate the degree of competition and the contractor's rationale for making the source selection (9-104.1). In addition, the contractor has the responsibility for demonstrating the continuing reasonableness of the LTA price.

e. When any of the contractor's required analyses are found to be incomplete or inadequate, the procuring contracting officer should be immediately notified. Generally, the risk that an LTA price is no longer reasonable increases as conditions change, which is more likely to occur with time. Auditors should consider expanded testing of the contractor's analysis and/or assist audit, in cases where the LTA is substantially aged. DFARS 252.215-7002(d)(4)(xv), Cost Estimating Systems Requirements, states that the contractor's estimating system should provide procedures to ensure that subcontract prices are reasonable based on a documented review and analysis provided with the same proposal, when practicable. Therefore, the auditor should consider whether an estimating system deficiency report should be issued if the contractor fails to perform LTA cost or price analysis, as required.

9-407 Direct Materials Requiring Special Consideration **

9-407.1 Government-Furnished Material and Reusable Containers **

a. Become familiar with the types and amounts of material which will be Government-furnished and verify that the contractor has not included cost estimates for such material in the proposal.

b. Review the estimated costs of packaging and shipping and segregate the costs included for containers. When the costs are significant, ascertain if reusable Government-owned containers are available. This is an area where considerable savings can accrue. For example, the auditor, in cooperation with the technical inspector, might determine that the cost to modify available Government-owned containers would be considerably less than the estimated cost of new containers or that used containers of the type needed will be available at the scheduled shipment date.

9-407.2 Residual Inventories **

When pricing a follow-on contract, consideration should be given to the ownership and value of materials which are residual from a preceding Government contract and usable on the proposed contract.

a. Where the preceding contract is a closed cost-type contract, the residual materials normally will be Government-owned and, if its use is contemplated, should be included in the proposal at no cost. However, the contractor should propose residual material from an open cost-type contract at actual cost. In these cases, the contractor should have internal controls to ensure that materials are transferred at cost if the new contract is awarded. Internal controls should be designed to protect the Government from being billed more than once for the same material.

b. Where the preceding contract was fixed-price subject to price adjustment, terms of the settlement should be evaluated to determine ownership. If Government-owned, the materials should be included in the proposal at no cost. If contractor-owned, it should be included at the lower of actual costs or current market price.

c. Title to materials residual from a firm-fixed-price contract normally will rest in the contractor and the materials may be included in a follow-on contract, priced at the lower of actual cost or current market price. However, if there is a substantial amount of such inventory, it may be appropriate to comment on the amount of this inventory when reporting on a proposed follow-on contract.

d. The "Title" provision of the Progress Payments clause provides that those contract terms referring to or defining liability for Government-furnished property shall not apply to property to which the Government shall have acquired title solely by virtue of the provisions of the progress payment clause. Upon contract completion, title to all property which has not been either delivered to and accepted by the Government shall vest in the contractor under this clause. Special provisions of the contract or negotiation settlement may provide for other final disposition of any residual inventory.

9-407.3 Scrap, Spoilage, and Rework **

a. The estimated cost of scrap and spoilage may be included by contractors in proposals as a direct cost, as a percentage factor applied to some other base cost, or as a part of indirect cost. Determine whether the contractor's accounting procedures give proper recognition to salvageable material generated under Government contracts and whether the method of estimating scrap and spoilage cost is consistent with the accounting method for the proposed contract and complies with the applicable Cost Accounting Standards. Also, consider the economy and efficiency of the contractor's operations in the area. When the experienced scrap, spoilage, and rework costs on previous procurements for the same or related products are available, utilize this data in evaluating the reasonableness of the current estimate. Graphic analysis may be very useful for this purpose (reference the Graphic & Regression Analysis Guidebook). A time series chart may be used to plot the movement of these costs or the percentage relationship to a volume base (such as direct material cost), on a monthly or less frequent interval. A scatter chart may likewise be groups of units produced. As a general rule, scrap, spoilage, and rework costs are higher during the early stages of a contract and reduce progressively as production techniques improve. In evaluating chart data, highlight those plot points that indicate abnormally high scrap, spoilage, and rework costs. The reasons for high costs should be analyzed and an appraisal made of the probability of their recurrence. Information of this type can usually be obtained from scrap committee reports or departmental efficiency reports.

b. Special attention should also be given to the contractor purchasing parts from surplus or salvage dealers, especially where the contractor has declared parts surplus and then repurchases similar parts at a later date. This may indicate poor procurement practices and/or a condition reportable under 4-700 or 4-800. (In this connection, if the auditor encounters a situation where a surplus or salvage dealer proposes to furnish parts on Government contracts using surplus parts that they acquired through normal Government channels, report this situation to Headquarters, ATTN: OAL, in accordance with 4-803.)

9-407.4 Process Loss **

Process loss is the difference between the amount of material required at the beginning of a process and the amount used for the finished part. Scrap loss is defective material while process loss is the material lost during the manufacturing process. Process loss may be estimated using an overall factor, or separate factors for major subelements (such as trim loss, chip loss, and excess casting material). Bill of material quantities for items manufactured from raw material (such as sheet metal, bar stock and composite) frequently are adjusted to include process loss factors. As with scrap, determine whether:

(1) the contractor's accounting procedures give proper recognition to process loss material generated under Government contracts, and if the loss is potentially significant, and

(2) the method of estimating process loss is consistent with the accounting method for the proposed contract and complies with Cost Accounting Standards.

When historical data on process loss is available, utilize this data in evaluating the current estimate. Graphic analysis as discussed in 9-407.3 may be useful. As a general rule, process loss rates should not vary significantly from previous contracts unless a new process or different material is introduced.

9-407.5 Obsolescence and Inventory Adjustments **

a. Treatment in Estimates. Obsolescence and inventory adjustments may be included in cost estimates as percentage factors applied to a cost base or as a part of indirect cost. In determining the reasonableness of the contractor's costs for obsolescence and inventory adjustments, consider the following:

(1) The treatment of those costs for accounting and estimating purposes complies with applicable Cost Accounting Standards. This includes determining whether the estimates are valid for the method employed, and whether the treatment given the costs will result in an over-recovery by the contractor.

(2) The percentage factors derived from past experience as a basis for estimating costs of obsolescence and inventory adjustments. Ascertain the period used as the base and whether the contractor considered (i) the exclusion of nonrecurring and abnormal write-offs and (ii) transfers-back of obsolete material to productive inventory.

(3) The factors which may have caused obsolescence. Ascertain, distinguish, and evaluate the reasons for obsolete material. Obsolescence may result from engineering changes or from material purchases in unreasonable quantities because of inadequate purchasing or record-keeping procedures.

b. Evaluation Guidance. Determine the reasonableness of the obsolescence factor contained in the cost proposal. Faulty procurement practices, inadequate records, inefficient store - keeping, or lack of standardization may result in unreasonable obsolescence estimates. When the charge for obsolescence appears unreasonable,

recommend elimination of the unreasonable portion from the estimated costs. If the evaluation indicates faulty procurement practices, recommend corrective action to improve the contractor's procurement practices and procedures. The condition should be noted for follow-up in a subsequent operations audit of the procurement function. When obsolescence is due to engineering changes, evaluate the loading factors based on current conditions. For example, when firm specifications have not been developed and the item to be made is in the development stage, the contractor's cost estimate may contain a relatively high obsolescence factor; on the other hand, the contractor's proposal should not include an obsolescence factor if the contemplated procurement is for an end item for which specifications are firm and no further change is contemplated. When circumstances justify the inclusion of a loading factor for obsolescence because of engineering changes, determine that over-recovery will not result because of inconsistencies in procedures followed in estimating and accounting. For example, over-recovery may occur if the contractor includes in his estimate a loading factor for obsolescence due to engineering changes and also includes the cost of the obsolete materials in his claim or proposal for an engineering change when materials are made obsolete by the change (see B-408.6e).

9-408 Using Direct Materials Cost Trend Data **

9-408.1 Material Cost Scatter Chart **

A graphic analysis and study of the trend of direct material costs per unit experienced in the manufacture of the same or a comparable product will assist in evaluating the costs included in estimates. Data plotted on time series charts may have only limited value when developing and studying trends of direct material costs, because there is generally little or no direct relationship between material cost and the time element. However, plotting the relationship on a scatter chart may reveal definite trends/patterns which can be helpful in evaluating direct material cost for additional units to be manufactured. When historical data include the direct material cost of the pilot run of a prototype, this cost should not be accepted as representative of the probable cost of succeeding production runs. Pilot runs may take place on the regular production line or in a model shop and may be aimed at simulating actual factory conditions; however, various production methods are often tested which contribute to abnormally high direct material costs per unit. High costs of pilot runs are generally the result of excessive scrap and spoilage, changes in material specifications to better adapt the product to large scale production, and initial purchases of small quantities (see the Graphic & Regression Analysis guidebook).

9-408.2 Material Cost Improvement Curve **

Using an improvement curve is generally associated with evaluating direct labor hour estimates, but may also be used in evaluating the estimated prices of direct material parts and components. Factors which may contribute to improvement in the direct material cost per unit include:

(1) job familiarization, which reduces the amount of scrap and rework loss,

(2) lower prices as purchase volume increases, and

(3) introduction of new sources and new aspects of material quality after the initial stages of test and experimentation.

Consider the use of improvement curves for plotting vendors' prices for parts and components which are repetitively purchased. The plotting of quantities (unit or cumulative) versus billing prices may develop patterns which can be useful in arriving at reasonable prices to be paid for follow-on purchases. In evaluating the direct material cost portion of a prime contractor's proposal, the auditor may also plot prior related total material cost experience on log-log paper to ascertain if a measurable rate of improvement in the material cost per unit has occurred. Ascertain if the contractor's material cost estimate falls within a reasonable range of the cost indicated based on a possible or probable continuation of the experienced improvement rate. When the contractor's total direct material cost forecast or forecasts of costs of selected components are significantly higher than what the probable costs would be (based on a continuation of the related experienced material cost patterns), ascertain the reasons for the excess.

9-500 Section 5 - Evaluating Direct Labor Cost Estimates **

9-501 Introduction **

a. This section states procedures to be followed in evaluating direct labor cost estimates. Factors which influence the scope of audit include:

(1) the materiality of the labor cost,

(2) the adequacy of the labor related certified cost or pricing data (see 9-200),

(3) the adequacy of the contractor's estimating procedures for determining labor requirements,

(4) the degree of the contractor's compliance with its estimating procedures,

(5) participation by other Government representatives in evaluating labor costs,

(6) results of prior operations audits,

(7) audits of Disclosure Statements,

(8) compliance with applicable cost accounting standards, particularly with regard to consistency between estimating and accumulating costs (CAS 401), and

(9) use of standard time methods.

b. If the risk factors described in 9-501a indicate problems or uncertainties about the way labor costs were proposed, it may be necessary to obtain assistance in reviewing technical aspects of the proposal. If so, refer to Appendix B which provides detailed guidance on the technical review aspects of labor cost estimates and the procedures for requesting assistance. Key elements of this guidance have been summarized and incorporated below.

9-502 Methods of Estimating-Direct Labor Costs **

9-502.1 Basis for the Estimate **

a. Direct labor cost estimates can usually be grouped according to one of two methods used in developing the cost estimates. There are those estimates developed primarily from historical direct labor costs (see 9-503) and those developed primarily from the application of technical data (see 9-504). The method used in arriving at an estimate will depend on the nature of the procurement and the extent of the contractor's experience with the labor requirements of the proposed contract. When the contractor is proposing on a follow-on contract, the labor estimate should be based on prior labor experience, adjusted for expected changes for future work. When the contractor is proposing on a research and development contract or a production contract for which the contractor has no prior cost experience, the auditor should expect the labor estimate to be based on technical data.

b. Although there is little uniformity in the way contractors categorize labor for the purpose of estimating costs, direct labor can generally be grouped into three major categories:

(1) manufacturing,

(2) engineering, and

(3) support.

For estimating labor requirements and costs within these categories there are many techniques which may be used. Selection of the most appropriate estimating technique and use of high quality estimating data are necessary to produce reasonable and accurate labor estimates. Seven of the most common techniques listed in order of increasing estimating accuracy are:

(1) judgment and conference,

(2) comparison,

(3) unit method,

(4) factor method,

(5) probability approaches,

(6) cost and time estimating relationships, and

(7) standard time method (see B-407.2).

c. Labor cost estimates based on historical data are generally developed through one of the following methods:

(1) comparison,

(2) unit method,

(3) factor, and

(4) cost and time estimating relationships.

Labor cost estimates based on technical data generally use:

(1) the judgment and conference method,

(2) probability approaches, and

(3) standard time methods.

d. The most common type of data used in preparing labor cost estimates are:

(1) actuals for the same or similar item or activity,

(2) labor standards with adjusted historical efficiency factors,

(3) standard cost with forecast adjustment factors, and

(4) tentative, judgmental, or rough estimated hours.

9-502.2 Classification of Labor **

When labor cost estimates are extrapolated from the recorded labor costs, the labor classification in the estimate will follow quite closely that used in recording labor costs. When labor cost estimates are developed from technical data, all labor attributable to furthering the prime requirement under the prospective contract may be considered direct labor; while labor engaged in support of the contract activities may be considered indirect labor. Either basis of labor classification may be present in any specific case. The auditor must evaluate and report on the direct labor cost estimates within the classification framework used by the contractor but should be alert for possible over or under recovery of costs because of deviations from applicable cost accounting standards, inconsistencies in the classification and treatment of labor costs, and in the development of labor rates applicable to individual cost estimates. Inconsistencies are likely to occur in the treatment of nonrecurring, contingent, or special labor cost items. Deviations, when combined with weaknesses in the internal cost estimating controls, can result in duplication of labor costs within the estimate by inclusion in both the direct and indirect labor categories.

9-503 Direct Labor-Cost Estimates Based on Historical Cost **

When historical cost data are available, the estimated direct labor cost will probably be a projection of that data. Such a direct labor cost projection should not be accepted merely on the assumption that the cost pattern or trend will continue unchanged during the period of the proposed contract. It is necessary to consider other related factors, some of which are discussed below.

9-503.1 Current Nature of the Labor Cost Data **

a. Factors which affect the productivity of labor normally will not be the same today as they were last week or last month. It is not sufficient to use labor costs accumulated in the past, adjusted only for changes in the labor rate, or to use the labor cost for the last job lots produced; the last job lots may well include labor cost incurred over an extended period of time. The cost data used in the estimate should be based on current experience, adjusted for anticipated reductions, modernization of manufacturing processes and practices, or other variations, and developed in accordance with the applicable cost accounting standards.

b. The objective in evaluating the base used by the contractor for the projection of a direct labor cost is to arrive at an amount which would represent today's cost for performing each direct labor task. In the case of standard costs, this occurs when the current normal variance, rather than the average variance over an extended period, is used as the base. Plant and personnel records should be reviewed for changes in labor efficiency or pay rates that would not be reflected in current cost data. A relatively simple check would be to compare the most recent cost for individual labor operations with that used by the contractor in developing its estimate.

9-503.2 Guidance for Evaluating Estimates Based on Historical Data **

The first step in evaluating labor estimates is to determine and assess the basis which the contractor used to estimate costs. The contractor's proposal should identify the sources of data, the estimating methods, and underlying rationale used. The contractor should analyze and use historical experience where appropriate. If the labor estimating technique applied makes use of historical data, the following steps should generally be performed:

a. Identify the historical data used to develop the labor cost estimate.

b. Ascertain the reliability and accuracy of the data. Audits of timekeeping and labor charging practices previously performed by the office may provide the needed level of understanding and confidence.

c. Evaluate the content of the data to assure that it is representative and contains all costs that are purported to be there. Compare supporting data to other sources of historical information such as operational staffing. Inconsistencies may indicate exclusions of pertinent historical data. Determine whether valid reasons exist for excluding data.

d. Test for consistency of data over a given period. Look for accounting system changes, reclassification of costs from direct to indirect and vice versa, and consider the results of previous cost accounting standard (CAS) audits. If the data is inconsistent (either historically or prospectively), the auditor should request the contractor to make appropriate adjustments.

e. Assure that nonrecurring costs are removed from historical data. Pay special attention to manufacturing setup costs which are lot quantity sensitive. Other nonrecurring costs may be in the historical period, but are not expected to occur in the forecast period. These costs should not be used to estimate future costs.

f. Assure that other non-representative data are excluded. For example, some historical inefficiencies may not be expected to recur. Likewise, some historical events are unique and should not be used as a basis for predicting future costs.

g. Make sure the data is current. Data which is too old may not reflect expected conditions (e.g., facilities, equipment, management, organization, modernization of manufacturing practices and processes, and staffing). Several years of historical data may be useful in identifying important trends.

h. Assure that historical data is obtained from the same facility where the proposed end-item or product will be manufactured. If the data was obtained from a different facility, determine its acceptability for estimating purposes.

i. Examine the relationship between lot costs and equivalent units produced. If the relationship is not consistent, it may indicate either changes in production (e.g., engineering design changes, make vs. buy changes) or inaccurate measurement of equivalent units in beginning and ending inventories.

j. Draw a conclusion regarding the suitability of historical data for making estimates.

9-503.3 Labor Cost Trends **

When evaluating the direct labor cost estimate, ascertain whether the contractor, in arriving at the labor cost projection, considered seasonal, "learning," and other factors that cause trend fluctuations and analyze the historical labor data covering a sufficient period of time and in sufficient detail (by departments, production centers, or processes) to disclose seasonal trends. One of the more common reasons for fluctuations in labor costs is the periodic overloading and underloading of plant facilities. Whether fluctuations in historical labor costs should be reflected in the projection and, if so, whether they should be averaged or treated individually, can be determined only by analysis of the contractor's direct labor and associated experience and proposed plans which might affect labor costs. It should not be assumed that past trends will continue, rather, the auditor should judge whether the conditions that produced the current trend are likely to continue and, if so, how such conditions will affect future costs. The use of any reasonable correlation of facts will assist in determining the presence of a labor cost trend and evaluate its causes, as a condition for projecting that trend. Correlation analysis and similar techniques (see the Graphic & Regression Analysis guidebook and EZ Quant), when applied to cost centers or production areas, usually will disclose significant trends in labor costs or in the relationships between labor costs and changes in labor efficiency.

9-503.4 Proposed Nonrecurring Costs of Labor **

Nonrecurring costs usually are not disclosed by a routine audit of labor costs. Nonrecurring costs; e.g., the temporary production of a part normally purchased, are frequently obscured because they are usually treated and charged as direct labor costs without further identification or segregation. Review of labor costs for selected tasks, jobs, or cost centers not associated with a normal job or process and a review of job lot records for unusual jobs may reveal nonrecurring costs. When the current estimate provides for nonrecurring costs, the auditor should weigh the probability that the costs will materialize. If it is considered likely that the cost will be incurred, the auditor should evaluate the reasonableness and allocability of the costs. If it appears unlikely that the costs will be incurred, they should be questioned.

9-503.5 Proposed Engineering Changes Costs **

Cost reductions resulting from prior engineering changes and included in recorded costs should be evaluated in estimating costs of follow-on procurement. The auditor should determine that the cost of expected engineering changes which will be priced as contract changes are not provided for in the current proposal. A review of the language in the invitation for proposal and related correspondence may indicate that the production requirements are less than definitive, and that modifications will be necessary in the future.

9-503.6 Setup Time Cost **

a. The auditor should ascertain the types of labor that the contractor normally classifies as setup time costs and review the method of accounting for such costs before evaluating the estimates of direct labor for setup time. Setup time costs are the costs required for changing over a machine or method of production from one job to another, and include the time for tearing down the previous setup and preparing the machine or process for the new operation. Setup may also include the time for the production and inspection of the first acceptable piece or test group of pieces. The time required to clean up the work area during or at the end of a production period is not included as setup time, except when it is necessary to make regular readjustments of a setup during the production cycle. The readjustment time may be charged either as production or setup time, depending on the contractor's accounting policy and the extent of the readjustment. When the setup for a process job is recorded as the first operation on an operation sheet, the time and cost may be similarly charged. The possibility of overlapping and duplication in the estimates of setup, tear down, handling, cleanup, and other setup cost elements which may or may not be charged as direct labor should be considered in each audit.

b. Adequate segregation of setup costs by categories such as departments, jobs, product lines, components, and operations will enable the auditor to make comparisons between the estimated setup time and costs for new procurements, and the actual time and costs for previously produced products of the same or similar type; and between a specific estimate and the actual setup time costs. Results of the comparisons should assist in evaluating the overall acceptability of the contractor's direct labor estimates for setup time and costs. The auditor should have a general knowledge of the caliber of labor required to perform the setup work in order to appraise setup costs. There is little comparison; for example, between the setup requirements for a tape controlled milling machine and those for a simple drill press. Knowledge of such factors will enable the auditor to more accurately appraise the efficiency and cost effectiveness of the estimated setup time. This is particularly important when the contractor uses a single setup cost rate as a rule-of-thumb method for computing setup time.

c. In evaluating the estimate for setup cost, the auditor should determine whether an approximate optimum number of items is scheduled for each production run and whether the estimated number of setups is reasonable. He or she should also consider factors affecting the size and frequency of production runs. These include the length of time over which delivery is to be made, the number of production lines, the number of production shifts, production scheduling, machine utilization, production capacity, tooling requirements and the tools available, and competing demands for the use of production facilities.

d. The contractor's procedures for planning setups in determining the efficiency and reasonableness of setup time costs should be evaluated. Estimates for setup costs should take into account the disruption in production or time lost for the use of facilities for other purposes during prior setup operations. Comparison of predetermined efficiency setup targets with actual costs for each setup provides a means for measuring setup efficiency and cost effectiveness.

9-503.7 Applicability of the Labor Cost Data **

Cost data used should be directly applicable to the proposed contract. When the estimate is for the continued production of a product currently or recently produced, the applicability of the cost data can be determined by examination of operation sheets and production schedules and plans. The auditor should examine, on a selective basis and in cooperation with Government technicians, blueprints, product specifications, and contemplated production methods for the new product. When appropriate, contractor personnel should be interviewed to ascertain probable significant changes in engineering production methods and the effect those changes might have on current cost data. When an evaluation indicates that significant technological changes have occurred since the cost data was accumulated, adjustment of experienced costs is necessary before projecting the experience cost pattern. Adjustment of the direct labor cost experience is especially important when the estimate applies to a product that is relatively new or has been materially modified from that produced in the past. The auditor should be alert to features of the contemplated production that might indicate a significant deviation from the normal labor pattern and its effect on the cost data.

9-503.8 Variances-Direct Labor Cost Estimates **

Variances between estimated and actual cost are generally a consequence of either human error or changed circumstances. They can result from:

(1) careless accumulation of supporting data,

(2) incorrect design information,

(3) unexpected delays causing premiums to be paid for overtime,

(4) unexpected processing problems requiring deviation from the manufacturing plan,

(5) failure to rework preliminary estimates to produce an accurate finished estimate,

(6) reliance upon estimators who are not familiar with job processes,

(7) making a "guesstimate" and then "padding" it to protect against unanticipated costs,

(8) failure to consider all quantities being built, and

(9) inappropriate use of learning curves or other techniques.

9-504 Direct Labor Hours Based on Technical Data **

9-504.1 Coordination with Technical Representatives **

a. Under appropriate circumstances, the auditor may make an adequate appraisal of a direct labor cost estimate through the use of labor cost data. However, because of the relationship of cost data with technical data, the appraisal should not be confined to labor cost data alone, but should include an evaluation of the technical aspects of a proposal by examination of production data, plans and related engineering data. When resorting to the use of technical data, the auditor should coordinate his or her efforts with technical personnel.

b. Whenever the auditor needs the assistance of a specialist to form an opinion on an element of the measurement of costs which is not an accounting or related financial subject, such assistance should be obtained. The auditor should:

(1) identify what type of technical specialist is needed,

(2) decide upon the best source for the technical specialist assistance,

(3) achieve good communications with the technical specialists,

(4) assess the impact of technical specialist findings upon the audit opinion, and

(5) report on the uses of technical specialists or the impact of their nonavailability. (See 9-306 and Appendix B.)

9-504.2 Guidance for Evaluating Estimates Based on Technical Data **

Specific areas in which the auditor may make inquiry, either in anticipation of coordinating with the technical representative or conducting the audit independently, include a review of:

(1) the labor hour estimate,

(2) operation time and shop methods,

(3) operation time standards, and

(4) the contractor's labor productivity. Further guidance on each of these four areas is provided in subsections 9-504.3 to 9-504.6.

9-504.3 Direct Labor Hour Estimates **

Conditions influencing the contractor's use of technical data to estimate labor hours include:

(1) the elimination of supplementary assembly lines originally established to accommodate temporarily accelerated production schedules or other emergency measures;

(2) the introduction of more efficient and cost-effective material issuing and handling procedures to eliminate or prevent bottlenecks and reduce work stoppage;

(3) improved techniques in the training of employees;

(4) more efficient transfers of employees between assembly lines, work areas, departments, shifts, and jobs;

(5) modernization of manufacturing processes;

(6) the introduction of new manufacturing machines; and

(7) the introduction of special tooling. To determine whether labor hour estimates reflect recently improved conditions, the auditor should compare current labor operation sheets with those in prior periods and with those reflecting advance production schedules.

9-504.4 Evaluation of Operation Time Sheets and Shop Methods **

When the contractor is unable to support its estimate with experience data, the auditor should seek other justification from the contractor, such as technical determinations, to assist in appraising the reasonableness of the data and bases underlying the cost estimate. An evaluation of operation time sheets or similar documents which reflect the estimated time required to perform each production operation generally will in the aggregate provide a basis for evaluating the estimated direct labor hours included in a contractor's cost estimate. Appraisal of the data contained in the operation sheets, requires familiarity with the contractor's products, plant organization and processes, manufacturing operations, tooling, machines, and the manufacturing complexities of the product. Operation time sheets should reflect current shop methods, production planning data and the most current time studies. The auditor should determine that the operation time sheets do not include as direct labor, operation which will be recorded as indirect labor and whether provisions for contingencies have been included in the estimate, especially in costing a new product. These and similar inclusions, if not justified, will result in an overstatement of the estimated direct labor hours and violate CAS 401 and 402. Documents supporting operation time sheets and production control records should be examined and discussed with Government technical personnel.

9-504.5 Operation Time Standards **

a. Operation time standards (i.e., the predetermined estimates of the time required to perform each operation) are usually reflected in operation sheets. These standards may or may not represent the same time factors used to develop the accounting standard direct labor costs or the actual labor costs as recorded in the contractor's cost accounting records. To perform a more meaningful evaluation, the auditor should determine the relationship between operation time standards and direct labor standards established for accounting purposes.

b. The basis for establishing operation time standards may vary depending upon company policy. Contractors may base standards on the number of units which can reasonably be produced by an employee under normal or average operating conditions; or may establish ideal operation time standards (i.e., standards based on nearly ideal conditions-as a means of encouraging maximum productivity). The auditor should analyze the contractor's time study methods and other bases used to establish time standards for each operation and should also analyze factors other than operation time, such as provisions for rework, setup, and other non-operational time which may have been included in the standards. Information of this type can be of value in appraising the reasonableness of cost data, such as the efficiency factors used to modify the operation time standards in arriving at the estimated number of direct labor hours for a specific proposal.

c. To illustrate: a contractor employing operation time standards based on attainable conditions, may compile monthly efficiency reports which indicated a 90 percent departmental efficiency factor. This productivity experience may be considered reasonable and in keeping with management expectations. On the other hand, where ideal operation time standards are established, a 60 percent departmental efficiency factor may be reasonable.

d. The auditor will find that operation sheets may or may not reflect a lower cost per unit for successive production lots. The auditor should determine whether a downward trend is present or is likely to develop and, if so, whether it has been reflected in the cost estimate. Time series diagrams and correlation studies of departmental efficiency rates which disclose short or long range trends will assist in the evaluation of the labor estimates. When labor cost standards-as used in the contractor's cost accounting system-are based upon data reflected in operation sheets, a time series analysis of monthly product labor efficiency variances will assist in determining the existence of a trend.

9-504.6 Labor Productivity **

a. Within limits, the productivity of direct labor, as measured by the quantity of product produced by a specified volume of labor, normally increases as production continues. The improvement may be due to the adoption of improved methods and tools or the increased efficiency of the individual worker. The amount of improvement per unit of product generally is high during the early part of the production cycle and decreases as production is stabilized, processes are refined and additional experience is gained. After production has stabilized, the rate of improvement may not be measurable except over a substantial period of time. When semiautomatic or automatic machines are used, production may become completely stabilized and the rate of improvement will approximate zero until a change is made in the product or in the production method. As production tapers off near the close of a period of stabilized production, labor productivity tends to decline toward a negative improvement rate. Reduction in productivity may be due to the wearing out of jigs and tools, the transfer of the more skilled workers to new jobs, or a slackening of effort by the remaining workers.

b. The auditor's primary interest in labor productivity is in measuring current productivity and past trends, and determining the causes of past trends so that the likelihood of continuance during the contemplated production period may be assessed. Causes and effects can be separately measured, provided the change is sufficiently pronounced and not obscured by other factors. A change in tools or the introduction of a highly improved production process might be related to a specific reduction in the required labor hours; or a change in design might be related to an increase in labor hours. Factors which affect productivity operate interdependently, and it is difficult to evaluate separately the effect of any one factor. However, an overall measurement of productivity may be made by correlating labor hour requirements with related successive quantities of output. One method of measuring the overall change in productivity is by the use of the improvement or learning curve. This technique and its application to direct labor hour estimates are discussed in EZ Quant.

9-505 Evaluation of Estimated Direct Labor Rates **

a. Direct labor rates used to estimate direct labor costs may be at expected individual or expected average rates. The latter rates may be either separately estimated for each proposal or pre-established for pricing many proposals submitted over a given period of time. There is wide variation in the methods and extent to which contractors combine the various direct labor grades and functions and associated pay rates for the purpose of cost estimating. Variations arise because of differences in the type, size, and importance of labor operations; in the type and arrangement of production facilities; in the manner and extent of departmentalization; and in the type and dollar values of Government and commercial contracts and products.

b. In the evaluation of direct labor rates, both individual rates and average rates, consideration should be given to hours worked in excess of 8 hours per day or 40 hours per week by salaried employees, particularly in the evaluation of fixed price proposals. Estimated labor rates may be based on the number of hours available during a year using an 8 hour day and a 40 hour week. However, evaluations of actual labor hours incurred may have determined that salaried employees generally work in excess of 8 hours per day and 40 hours per week. The estimated direct labor rates used should therefore reflect the total hours the employee is expected to work during the year. See 6-410.

c. FAR 37.115, Uncompensated Overtime, does not encourage the use of uncompensated overtime and requires the solicitation clause at FAR 52.237-10 be included in all solicitations that exceed the simplified acquisition threshold, for professional or technical services to be acquired on the basis of the number of labor hours to be provided. FAR 52.237-10 defines "uncompensated overtime" as "hours worked without additional compensation in excess of an average of 40 hours per week by direct charge employees who are exempt from the Fair Labor Standards Act (FLSA)". Service contracts are usually awarded on the basis of the tasks to be performed rather than the number of hours to be provided. However, if a service contract is awarded on the basis of the number of labor hours to be provided and the contractor proposes "uncompensated overtime" hours, then this solicitation provision requires the contractor to identify in its proposal the "uncompensated overtime" hours and the adjusted hourly rates that result from multiplying the hourly rate for a 40 hour work week by 40, then dividing by the proposed hours to be worked per week, including any uncompensated overtime hours above the standard 40 hour work week. This includes "uncompensated overtime" hours that are in indirect pools for personnel whose regular hours are normally charged directly. This FAR provision also requires that:

(1) the contractor's accounting practice for estimating "uncompensated overtime" be consistent with the accounting practice for accumulating and reporting these hours,

(2) the contractor include a copy of its policy on "uncompensated overtime" with its proposal, and

(3) the contracting officer conduct a risk assessment and evaluate any proposals received that reflect such factors as unrealistically low labor rates that may result in quality or service shortfalls and unbalanced distribution of uncompensated overtime among skill levels and its use in key technical positions.

d. Auditors should notify contracting officers of any apparent noncompliance with the FAR requirements, specifically, if the contractor proposes uncompensated overtime hours but fails to identify the hours and the corresponding adjusted hourly rates. Auditors should also notify contracting officers if the contractor fails to submit a copy of its policy addressing uncompensated overtime with its proposal.

9-505.1 Individual Employee Labor Rates **

a. Individual rates may be used when the persons who will perform the work under the proposed contract are known. A determining factor in the award of a contract may be the "know-how" of specific individuals, and their agreement to perform the work under the contract. In other cases, individual rates may be used when the procurement being audited requires a caliber of employees whose pay rates are not representative of the average rates paid within their labor classifications.

b. While the use of individual rates in cost estimating will produce precise results, average rates within labor classifications are generally developed and employed for practical purposes. Either approach may result in reasonable estimates provided a consistent practice is followed and deviations will not affect proper recovery of anticipated costs.

9-505.2 Average Labor Rates **

a. The development of average labor rates by contractors may include a single plant-wide average or a separate average rate for a function, grade, class of labor, cost center, department, or production process.

b. The use of average rates is generally warranted because within each unit of an operating plant there is usually a labor norm and cost pattern for each production situation and associated group of workers. Average rates, properly computed and applied, will express the labor norm and equalize the effect of the indeterminable factors usually associated with other methods. The use of average rates is preferable, for example, when the contractor is unable to project with any degree of reliance the:

(1) identity of those who will perform each operation and correspondingly the individual rates of pay,

(2) exact production processes to be used, particularly when the contractor has no applicable experience, and

(3) precise labor requirements.

c. The inclusion of inapplicable types or quantities of labor in the computation of an average rate is not in itself reason for not accepting the rate. The auditor should determine whether the inclusion significantly distorts the average from the probable norm for the contemplated production.

d. It would be improper for a single average to combine equal quantities of high- and low-cost labor if they were not to be used equally in production, or to compute an average group of pay rates without weighting; that is, without regard to the number of employees receiving each wage. The use of weighted averages is necessary to give proper effect to all factors.

e. There are a number of methods for computing weighted averages. A generally accepted method is to obtain weighted averages from the total projected payroll for each production unit for the contract performance period adjusted for any abnormal labor cost conditions.

f. In summary, factors which the auditor should consider in evaluating proposed average labor rates include:

(1) the reasonableness and acceptability of the labor classification,

(2) the probability that relatively the same grades of labor will be used in performing the contract as were used in developing the estimate, and the probable effect of any material deviations;,

(3) the accuracy and propriety of the method used in computing the averages,

(4) the impact on the average rates of projected increases or decreases in the general level of labor costs, and

(5) the significance of any deviation from past practices in developing the rates, in their application, or in the normal and proposed methods of distributing costs when incurred.

9-505.3 Pre-established Labor Rates **

a. Value of Pre-established Labor Rates. Contractors may estimate labor rates for use in computing the estimated direct labor cost portion of all proposals to be submitted during a specified period of time. The contractor may estimate the production labor hours for a contract and compute a cost estimate by applying an average labor rate for each manufacturing department, production function, or type of labor. This procedure is inexpensive and is a workable procedure because it:

(1) recognizes a continuing uniformity in the manufacturing process within a plant, which has considerable validity, especially when separate rates are used for each production function, and

(2) promotes consistency in estimating methods and compliance with applicable cost accounting standards. (See 9-1200 for general guidance on forward pricing rate agreements.)

b. Limitations on Pre-established Labor Rates. Labor rates are not applicable to all businesses or to all labor conditions or manufacturing processes within a business. The customary use of labor rates by a contractor in developing direct labor cost estimates does not make their applicability automatic. There are definite limitations on the use of such rates. Their use is based on the assumption that the manufacturing process is relatively stable and prior labor usage patterns are not expected to change significantly in the future. The use of labor rates must be examined in each case to determine whether the contemplated production methods and requirements parallel the conditions as to labor usage presupposed in the development of the rates, or whether conditions are present which indicate that the rates should be modified or rejected. This appraisal must be made even though the rates have been approved on an overall basis by Government procurement activities. The audit report should contain appropriate comments whenever the evaluation of labor rates discloses that the rates are unreasonable or not properly applicable to the work to be performed.

9-505.4 Rate Impact of Contractor's Labor Usage **

The auditor usually can expect, in the absence of indications to the contrary, that production labor norms will be applicable insofar as factors such as the pay differentials for unskilled labor, longevity, efficiency, piece work premium, and shift premium are concerned. The same assumptions cannot be made for factors such as the pay differentials for skilled workers, specialists, technicians, engineers, and others. Usage patterns vary and variations are often due to the nature of the production involved. The auditor therefore must consider both current usage and future labor plans. The proposed and probable labor patterns for production under the contract must be considered. The auditor must also think about the consistency of those patterns with other plans for the prospective production period; the availability of the various classes of labor; and the normal methods of using, assigning, recording, and charging the labor costs to commercial and Government products and contracts. Significant deviations from the normal pattern should be supported by adequate justification for the auditor's consideration in evaluating the estimates.

9-505.5 Use of Permanent Audit Files **

The effect of pay differentials and usage factors may be evident from a review of the proposal, the supporting papers, and production plans. The operation and effect of other factors may require an examination of past proposals and experience on corresponding contracts; sales forecasts; long- and short-range budget plans; facility usage plans; and labor, hiring, assigning, and training programs. A current record of findings should be kept to reduce the amount of audit work and to facilitate the coordination and integration of the auditor's examination of each proposal with the contractor's over-all operations and plans. This is particularly helpful when the auditor evaluates a number of proposals submitted by one contractor or performs a number of audits of one contractor's records over a period of time. For example: examination of the permanent files may indicate that a current proposal contemplates a higher than normal labor-hour cost based on the intention to use only top grades of engineers for a part of the proposed production. The permanent file records for other contracts and pricing proposals for the same period may show that costs were based on average rates which also included the wages of the same top grades of engineers for the same periods of time. Identification of inconsistencies, such as shown in this example, requires close integration of current and past examinations and is essential in the evaluation of labor cost estimates.

9-505.6 Trends of Labor Rate Experience **

a. The current average hourly rates paid for each labor classification may be used by contractors as a starting point for computing future rates. These should be verified by examining current payroll records.

b. The average rates should be adjusted for any planned or expected changes in the wage scale and any trends that may be present in the historical pattern or that can be expected to carry forward into the contemplated production period. This will require an analysis of the historical labor and payroll data for a period of time sufficient to disclose any trend that may be present. The analysis should be in sufficient detail by intermediate periods to disclose significant deviations from the trend as well as the pattern of any periodic deviations that have a material effect on the trend.

c. The period to be covered by the analysis cannot be predetermined. Seasonal and longer term fluctuations generally require that experience factors be examined for a minimum of two business years. A longer period of time may be necessary in special circumstances. However, the use of a longer period will not necessarily increase the validity of the trend data developed because changes in organizational structure, size or composition of the labor forces, general economic conditions, and other factors affecting the rates may be encountered over a long period; these factors may not be appropriate for consideration when estimating rates for future periods.

9-505.7 Factors Influencing Validity of Average Labor Rates **

a. Personnel Policies and Actions. The auditor should evaluate the effect of proposed personnel actions on the estimated average hourly labor rates and determine whether actions which have a material effect on these rates are in accord with the normal personnel policy, and whether resulting rates are reasonable.

(1) Wage Agreements. The auditor should determine whether consideration has been given to the terms of all current wage agreements and prospective changes. In evaluating agreements which provide for changes based on cost-of-living indices, the auditor should analyze current and past trends and determine their future significance. Information contained in the labor rate reports published by the Bureau of Labor Statistics, Department of Labor, Washington D C, and by state and local agencies may furnish data for this type of analysis.

(2) Other Personnel Actions. It is not practicable for the auditor to isolate and measure the precise effect of every personnel action on average hourly rates. Merit increases, promotions, and changes in size and composition of the labor force occur continually, are interrelated, and have a cumulative effect on average hourly rates. The auditor should determine the composite effect of the personnel actions and determine whether any over-all current average hourly rate trends exist which will continue during the contemplated production period or whether there are indications that new trends are likely to develop. The major factors should be analyzed and the trend indicated by each type of action determined even though the effect of each action on the average labor hourly rate cannot be measured directly. The possible effect of personnel actions on average hourly rates may be estimated by relating each major action with the over-all change in average hourly rates through the use of graphic techniques such as time series diagrams and correlation analyses. These techniques and their application to average direct labor rate estimates are discussed in the Graphic & Regression Analysis Guidebook.

b. Change in Labor Force. Changes in the size and character of the labor force affect average pay rates. These changes accompany increases or decreases in production volume. A material increase in volume usually will result in a decrease in the average rate because of new hiring at lower entrance level or at rates below the average. The opposite result can be expected when production volume decreases. The first groups of employees to be separated are generally in the lower pay levels of their respective labor classifications. The possible effect on labor cost of a contractor's plans to increase or decrease the labor force because of changes in production volume can be estimated by correlating past changes in the number of personnel and changes in the average pay rates for each plant unit or labor class. In evaluating planned changes in the number of personnel a further correlation might be made of the labor force or labor payroll with production volume, as measured by units, cost of sales, or other means.

c. Multishift and Overtime Operations. When evaluating average labor rates the auditor must consider multishift and overtime operations. Premium payments for multishift and overtime may have a direct effect on the average direct labor hourly rates, depending on the method used in classifying and distributing costs. When premium payments are recorded as overhead, they should not be reflected in the average direct labor hourly rate. When treated as part of the direct labor charge, premium payments should be segregated from average direct labor hourly rates. If not segregated, fluctuations in the amount of premium pay will tend to distort any trend or other data developed in analyzing changes in the regular pay rates.

9-600 Section 6 - Evaluating Estimated Other Direct Costs (ODC) **

9-601 Introduction **

This section provides guidance for evaluation of estimates of the various types of costs usually referred to as "other direct costs".

9-602 Definition of Other Direct Costs **

a. In addition to direct labor and direct material, other types of expenses, under certain circumstances, may be specifically identified to a specific job. These are generally referred to as “other direct costs”.

b. Costs classified by contractors as ODCs vary in treatment, but may often include among others:

(1) engineering,

(2) special tooling,

(3) packaging,

(4) travel and subsistence, and

(5) field service.

9-603 Objectives and Scope **

a. The audit objectives when auditing ODCs are to determine whether:

(1) the contractor's classification is proper,

(2) the underlying data in support of the estimates is valid, current, and applicable,

(3) the costs as reflected in the estimates are reasonable,

(4) the costs are estimated using acceptable procedures applicable in the circumstances, and

(5) the contractor has properly considered all factors which might have a bearing on the validity of the estimated costs.

b. The scope of the auditor's evaluation of ODCs will depend upon:

(1) the significance of the amount,

(2) the adequacy of the contractor's procedures for estimating costs,

(3) the degree of uniformity in estimating procedures, and

(4) the consistency of estimating procedures with disclosed accounting procedures and CAS.

Some contractors consider ODCs as being directed wholly toward the production of complete end products and consequently do not include these expenses in cost estimates for spare parts. Others contend that spare parts production has an impact on both the types and amounts of these expenses, and therefore provide for such estimates in spare parts proposals. Regardless of which method is followed, determine the propriety of ODCs for either end products or spare parts and verify that the method of treatment complies with disclosed practices and other CAS requirements.

9-604 Other Direct Cost Evaluation Considerations and Techniques **

The contractor may include in ODCs, costs referred to as start-up, design and production, and continuous or maintenance engineering. To perform an effective evaluation, the auditor must have knowledge of the contractor's practices, policies, definitions, concepts, accounting treatment, results of prior operations audits, and estimating methods that effect ODCs. Guidance applicable to factors which should be considered in evaluating ODCs are contained in the following paragraphs.

9-604.1 Application of Percentage and Conversion Factors **

a. Packaging, field service, and various types of engineering and tooling costs may be estimated by applying percentage to some other basic cost or conversion factors (e.g., number of staff-hours per month) to basic estimates of required staff-months of effort.

b. In auditing conversion factors applicable to direct labor hours per staff-month, for example, ascertain whether the contractor considered excluding time for holidays, vacations, sick leave, idle time, and similar items of an indirect nature. Failure to make proper allowance for indirect time in the conversion factors normally results in overpricing the contract and noncompliance with CAS 402 where applicable.

c. Percentages and conversion factors may be applied separately for each estimate, or they may be submitted or proposed periodically for incorporation in all proposals. In either instance, and notwithstanding previous agreements, evaluate the propriety of percentage and conversion factors for applicability in the current proposal.

9-604.2 Government-Furnished Material **

In some cases, the Government will furnish materials or services to the contractor on a "no charge" basis. Government-furnished materials may include special tools, shipping containers, or other items which may be classified by the contractor as ODCs. In these cases, verify that estimated costs for Government-furnished materials are not included in the proposal.

9-604.3 Use of Accounting Data **

Contractors' accounting records which provide reserve accounts for ODCs based on the quantity of end products produced or shipped, may be used in evaluating estimates. When reserve accounts are maintained, credit entries are based on estimated amounts per unit applied to the quantity of end products produced or shipped. Debit entries are made for the expense actually incurred. An analysis of these reserve accounts should assist in determining the reliability of the contractor's prior estimates. Large credit balances may indicate overestimating and large debit balances may indicate underestimating actual costs.

9-604.4 Analytical Techniques **

a. Various analytical techniques can be used in evaluating the reasonableness of ODCs. Graphic analysis usually is an appropriate evaluation tool for studying experienced cost patterns as they relate to various types of ODCs. Time series charts are useful in depicting the experienced movement of expenses or percentage factors related to some base cost over a time period. Scatter charts are used to show linear relationships of a specific other direct cost to some other volume base to which it bears a close correlation.

b. The comparative analysis technique may be applied using as reference points available engineering data, budgets, loading charts, previous proposals for similar items, and industry standards and experience.

c. When the contractor's proposal contains significant engineering or tooling staff-hour estimates, the estimates can be compared with related staff-hours specifically identified with the directly chargeable total plant engineering or tooling labor base used in the computation of the proposed engineering or tooling overhead rates. When the use of analytical techniques discloses significant differences, obtain further information from the contractor in support of the estimate. When differences cannot be adequately justified, the audit report should contain appropriate comments and recommendations.

9-605 Specific ODC Evaluation Considerations **

Expenses generally classified as other direct costs (ODCs) and audit considerations related to them are discussed in the following paragraphs.

9-605.1 Engineering **

Engineering costs included as ODCs generally fall into two categories--design and production. The type of engineering effort included in each of these categories depends on the individual contractor's practices. Because engineering effort required for a specific procurement of a complex product or for research and development involves technical determinations, assistance from Government technical personnel should normally be solicited when evaluating proposed engineering staff-hour estimates. An understanding of the various fields of engineering specialists is important when fashioning requests for technical specialist assistance. The major engineering fields (i.e., industrial, mechanical, electrical, chemical, and civil) and several subspecialties are discussed in Appendix B.

a. Design Engineering. Data accumulated in the contractor's accounting system or adjunct statistical records which may be helpful in evaluating estimates for design engineering include:

(1) the total number of basic design hours expended on previous contracts of similar complexity,

(2) the number of various types of drawings required, and the average number of hours expended per type of drawing for prior contracts of varying degrees of complexity,

(3) the percentage factors for support engineering (the direct engineering effort other than that expended by detailed designers working in the design department), and

(4) percentage factors for engineering effort incidental to changes made during production which represent refinements of the product to attain improved performance.

b. Production Engineering. Production engineering generally represents engineering effort expended during the life of a contract, beginning with the completion of the initial design. Initial design is usually segregated from other engineering effort in the contractor's accounting or statistical records. Design changes for which costs are not segregated may occur during the life of the contract. In evaluating the reasonableness of production engineering estimates, evaluate the contractor's methods and supporting data. Include an evaluation of similar type engineering hours expended on previously completed projects of like complexity.

c. Analytical Techniques. The plotting of engineering hours of contracts of similar complexity, by month, will generally indicate the extent of design and production engineering effort related to significant points of contract performance. Graphic analysis may also indicate definite patterns of engineering contract costs compared to deliveries. When the estimate involves a follow-on procurement, or the run-out portion of an existing contract, using graphic analysis of prior experience is of particular importance in evaluating proposed engineering costs. The analysis should provide:

(1) An appraisal of the reasonableness of the monthly production engineering hours estimated by the contractor.

(2) A determination whether there is a marked reduction in engineering hours after the initial delivery.

(3) An appraisal, at an interim point, of the reasonableness of the contractor's estimated production engineering hours for the run-out portion of contracts subject to price redetermination or for setting successive targets under incentive type contracts.

9-605.2 Special Tooling and Special Test Equipment **

a. Special tooling is designed:

(1) to reduce the requirements for production/manufacturing labor hours and costs,

(2) to speed production, and

(3) to improve techniques, tolerances, and finished parts.

The term includes jigs, dies, fixtures, molds, patterns, special taps, special gauges, and special test equipment used in the production of end items. The term does not include general-purpose tools, capital equipment, expendable tools, small hand tools, tools acquired prior to the contract, replacement tools, and items of tooling which are usable for the production of items not required under the contract.

b. Special test equipment means either single or multipurpose integrated test units engineered, designed, fabricated, or modified to accomplish special-purpose testing in the performance of the contract. Testing units comprise electrical, electronic, hydraulic, pneumatic, mechanical, or other items or assemblies of equipment that are mechanically, electrically, or electronically interconnected to become a new functional entity. This causes the individual item or items to become interdependent and essential in the performance of special-purpose testing in the development or production of particular supplies or services. The term special testing equipment does not include:

(1) material,

(2) special tooling,

(3) buildings and nonseverable structures (except foundations and similar improvements necessary for the installation of special test equipment), and

(4) equipment items used for general plant testing purposes.

c. Audit Considerations

(1) The contractor may support the total tooling cost estimate (including estimated tooling hour requirements) by a detailed listing of the type and quantity of each special tool required, with the related estimated purchase or fabrication cost. To evaluate their reasonableness, compare the estimates for a selected group of these tools with actual costs or actual hours expended for similar tools in previous production, appropriately adjusted. Adjustments may be necessary to reflect differences in the number of tooling hours because of increased or decreased complexity of the product or improvements in methods and techniques. Replacement and maintenance type tools recorded as indirect costs, and items of a capital nature which should be obtained under a facility contract, should be excluded from the list of special tools.

(2) For follow-on production orders, determine whether any of the production tools purchased or fabricated on prior contracts will be available for use on the proposed contract and whether the cost estimate has taken this into account.

(3) The use of graphic analysis to reflect the relationship between tooling costs of projects of like complexity with related delivery schedules will assist in evaluating the reasonableness of tooling costs in the current estimate. This type of analysis should provide information similar to that discussed in 9-605.1c.

(4) Determine whether expensive tools are justified and whether a sufficient number of employees with required skills are available to use the tools properly.

(5) Establish whether proposed special test equipment is justified. It must meet the definition for such equipment, and current inventories of Government or contractor-owned special test equipment should be evaluated to determine whether the equipment is available (see Selected Areas of Cost guidebook, Chapter 40).

d. Liaison with Government Engineering Personnel. Maintain liaison with available Government engineering personnel familiar with the requirements of the proposed procurement and obtain information on:

(1) the availability of Government-owned tooling and special test equipment,

(2) the propriety of the numbers and types of tooling and special test equipment provided for in the estimates in relation to the production requirements,

(3) possible savings which may be accomplished through improved tooling, and

(4) the overall reasonableness of the estimated costs for tooling and special test equipment proposed by the contractor (see Appendix B).

9-605.3 Packaging **

a. Packaging specifications are usually included in the request for proposals. These mainly depend on whether the item packaged will be shipped to a point within the United States (domestic) or overseas. Domestic packaging usually does not require special treatment provided it meets generally accepted end item packaging methods. The related cost may be classified as either an indirect cost or an ODC as long as it complies with the proposed accounting system to be used in costing the contract and all applicable Cost Accounting Standards. Packaging for overseas shipment requires special treatment, and the applicable costs are generally classified as ODCs. The special treatment accorded overseas packaging, as prescribed by Government specifications, requires that crating materials be of a better grade than those used for domestic crating; and the packages must pass a water and moisture proofing test. When packaging cost estimates are based on complex technical determinations and the dollar amount is significant, it usually is appropriate to request the assistance of a Government packaging specialist (see Appendix B).

b. The reasonableness of the contractor's packaging cost estimate may be evaluated by comparing it with costs incurred for similar types and kinds of packaging. Graphic analysis (e.g., time series or scatter charts) showing the unit packaging material and labor costs for related items or the relationship of packaging cost to shop cost over an extended period, may be used to plot the experienced costs for further analysis. Statistical data usually available in the packaging department can be used for this comparison. In addition, review information regarding instructions for packaging under various specifications, packaging standard hours arrived at by scientific means, and packaging bills of material if available. When experienced cost trends are plotted on charts for further study and analysis, ascertain whether:

(1) all nonrecurring costs have been eliminated,

(2) the packaging specifications of the current proposal are comparable to those which generated the experienced costs, and

(3) the contractor has considered the possible impact to packaging material and labor cost trends resulting from expected changed market conditions.

9-605.4 Travel and Subsistence **

Travel and subsistence costs usually include the costs of transportation and per diem, (lodging, meals, and incidental expenses) incurred by personnel while in travel status. When included as ODCs, the estimate usually is based on the contemplated number of trips, places to be visited, length of stay, transportation costs, and estimated per diem allowance. Questionable estimates for this cost may arise from such errors as the following:

a. Per diem rates projected that exceed allowable per diem costs after they have been escalated for expected inflation. Per diem rates are set forth in the (1) Federal Travel Regulations (FTR) established by GSA for the 48 Continental United States, (2) Joint Travel Regulations (JTR), Volume 2 established by DoD for Alaska, Hawaii, Puerto Rico, Northern Marianna Islands and territories and possessions of the U.S.,and (3) Department of State Standardized Regulations for locations not covered by GSA or DoD (FAR 31.205-46(a) and P.L. 99-234). For example, to estimate 20X9 per diem rates, the latest established rates for meals and lodging should be increased/decreased by a factor that reflects the forecasted economic change from the current established rate expiration date to 20X9. Refer to the DCAA intranet Economic Indices webpage.

b. Transportation rates projected in excess of lowest customary standard, coach, or equivalent air fare offered during normal business hours.

c. Projected transportation costs for personnel to be transferred computed by using other than proper departure points.

d. Mileage allowances projected in excess of actual needs.

e. Excessive projected trip costs to a Government activity or subcontractor location for engineering coordination because the required number of trips and/or length of stay has been overstated.

f. A comparison of the current estimate with experienced costs of prior procurements of a similar nature indicates that the current estimate is unreasonable.

9-605.5 Field Service **

Contracts may contain provisions requiring contractor engineering personnel to service delivered equipment. The cost, usually referred to as field service expense, may be included in the contractor's estimate as a separately identifiable ODC, or as a part of indirect cost. Whichever method is used, it must comply with the accounting system to be used in costing the contract and all applicable cost accounting standards. The cost of installation, maintenance and repair, and the development of operating instructions may be identified in the contractor's records as Field Service Expense, Guarantee Expense, Warranty Expense, or Reserve for Guarantee. Establish whether the procurement being audited provides for field service. An evaluation of the field service estimate should include:

(1) evaluation of the data in support of the estimate,

(2) comparative cost analysis, including the use of graphic analysis where appropriate,

(3) discussions with other Government representatives regarding complex engineering determinations, and

(4) evaluation of the degree of conformity to the policy stated in FAR 22.1006.

9-605.6 Royalties **

The contractor's cost estimate may include provision for royalties as a separately identifiable ODC or as part of indirect cost. Determine whether royalties are proper for inclusion in the price and whether the contract will include royalty reporting requirements and royalty escrow or recapture provisions (FAR 27.202-1). The nature of the contractor's cost support for this element should be evaluated and addressed in the report.

9-605.7 Preproduction and Start-up Costs **

Contractor's proposals should identify preproduction, start-up, and other nonrecurring costs, including such elements as preproduction engineering, special tooling, special plant rearrangement, training programs, initial rework or spoilage, and pilot runs. These costs may be susceptible to verification by a review of detailed documentation. In some instances, an analysis of experience on prior contracts by means described in the Graphic & Regression Analysis Guidebook will help to establish the reasonableness of costs proposed. Ascertain the proposed handling of such estimated costs. If the total costs are not to be charged to the contract being audited, determine whether the contractor intends to absorb the residual costs or recover them on subsequent orders.

9-700 Section 7 - Evaluating Estimated Indirect Costs **

9-701 Introduction **

This section provides guidance in evaluating estimates of indirect costs. These include manufacturing expense, engineering expense, tooling expense, material handling expense, selling expense, and general and administrative expense. Guidelines are also provided for evaluating indirect cost rates used in estimating indirect costs.

9-702 Estimated Indirect Costs – General **

The evaluation of indirect costs and rates requires that the auditor have:

(1) an understanding of the applicable evaluation considerations and techniques,

(2) an insight as to what reasonably may be expected to occur in future operations of the contractor and the probable influence on projected indirect costs and overhead rates, and

(3) knowledge of the contractor's disclosed accounting policies particularly those for distinguishing direct costs from indirect costs and the basis for allocating indirect costs to contracts. (See Chapter 8.)

9-702.1 Evaluation Considerations and Techniques **

a. The audit considerations in evaluating estimated indirect costs are similar to those used in the audit of historical costs because many estimates are based on historical costs. Audit guidance and procedures applicable to the audit of indirect costs and the evaluation of contractor's policies, procedures, and internal controls which affect indirect costs are presented in 6-600. The effect of findings and recommendations developed through operations audits should be applied to estimated or proposed indirect costs and overhead rates (see 9-308b). Audit leads noted during the course of the audit should be documented for follow-up in future operations audits of those indirect cost areas where it appears the contractor is not employing the most effective, efficient, or economical operations.

b. The auditor should consider the use of graphic analyses and statistical techniques in evaluating estimated indirect costs. Techniques of graphic analyses are discussed in the Graphic & Regression Analysis Guidebook. These techniques alone do not provide a basis for firm forecasts of costs; however, in appropriate circumstances, they can provide a basis for ascertaining whether estimated costs are within a cost range of what can reasonably be expected in the future.

9-702.2 Anticipated Future Operations **

Evaluation of indirect cost estimates requires consideration of anticipated future operations of a contractor. To determine what may be reasonably expected to occur, the auditor should utilize analyses and projections of historical cost patterns and related data. When audits of historical costs are not reasonably current, and other methods of satisfying the audit objective are not available, the report should be qualified. Other methods of satisfying the audit objectives include reliance on certified final contractor overhead submissions, the work of internal or independent auditors, or CAS compliance audits. It should not be assumed that historical cost patterns and the results of overhead audits for prior years will continue without change; the auditor must consider contemplated changes which may influence the projections. Examples of changes and possible effects are discussed in the following paragraphs:

a. A change in the accounting policies governing the treatment of certain indirect expenses. This may include reclassifications of expense from direct to indirect, and new methods of accumulating and allocating indirect cost. Changes of this nature may affect the estimates for indirect costs and the computation of indirect cost rates. The auditor should be alert for accounting changes which would require the contractor to revise its Disclosure Statement (see 8-303).

b. A change in management objectives as a result of economic conditions and increased competition. For example, the management may have placed emphasis, in the past, on a program to increase sales, whereas it now emphasizes a program to reduce costs. The auditor should ascertain the programs that management is stressing and determine that possible results have been considered.

c. A change in manufacturing processes and practices. Changing manufacturing operations can affect the flow of cost. Modernization changes may affect estimates for indirect cost and the computation of indirect cost rates. For example, technological modernization can include acquisition of expensive new machinery which increases depreciation costs and the overhead pool. This new machinery may require fewer labor hours and result in reduction of a direct labor base for allocating overhead. The auditor should be alert for changes to manufacturing processes and practices which can highlight accounting system weaknesses and should consider whether:

(1) The accounting system accurately assigns costs to products and equitably allocates costs.

(2) The accounting system allocates costs to develop future product technology to existing products which receive no benefit.

(3) The accounting system reflects savings resulting from technological improvements.

(4) The accounting system integrates relevant data collected by newly implemented information systems.

9-702.3 Classification of Cost as Direct or Indirect **

The auditor must determine whether cost items are directly or indirectly allocable to the proposed contract and that the estimated costs have been properly classified as direct or indirect. The auditor's evaluation of the allocability of cost items should disclose any deviations from the contractor's usual direct and indirect cost classification. When deviations are disclosed, the auditor should determine the reasons for the differing treatment. Deviations may cause inequitable distribution of costs or they may be proper and warranted. The principles underlying the accounting and estimating classification for direct and indirect costs should be sufficiently flexible to reflect changes in operations. CAS 402-"Consistency in Allocating Costs Incurred for the Same Purpose" was established to insure that each type of cost is allocated only once and on only one basis to any contract or other cost objective (see 8-402).

9-703 Evaluation of Indirect Costs **

9-703.1 General **

The scope and extent of the audit of estimated indirect costs will depend on individual circumstances. As a minimum, the auditor should determine:

(1) the extent to which underlying data in support of the estimates are valid, current, and applicable to the proposal being audited,

(2) that the contractor has considered factors and conditions which have a bearing on the propriety of the estimated costs and the related allocation bases, including operations auditing recommendations for increased efficiency and economy, and

(3) that the results are mathematically correct.

9-703.2 Classification of Indirect Costs **

There are two general considerations in classifying indirect costs:

a. A determination that the cost is assigned to the correct indirect cost pool; for example, manufacturing, engineering, material handling, occupancy, or general and administrative. The auditor should evaluate the composition of indirect cost pools to determine whether the accounts included are properly classified and whether further refinement in cost categories is required, and

b. A determination that indirect costs have been properly classified by characteristics; that is, variable, semivariable, and nonvariable. Variable costs will vary directly and proportionately with its related volume base. Semivariable costs may vary directly but less than proportionately, with volume; further, the costs may remain relatively fixed between certain production limits and advance by steps, an example of this is supervisory wages. Nonvariable costs, on the other hand, will remain fairly constant, but the percentage relationship will vary inversely with an increase or decrease in the related volume base.

9-703.3 Advance Agreements (Indirect Cost) **

The auditor should determine whether the contractor has entered into advance agreements with the Government. Advance agreements may limit recovery of certain indirect costs such as independent research and development expense, bid and proposal expense, and recruiting expense.

a. When advance agreements cover indirect costs included in the estimates, the auditor should determine that allocations to Government contracts are within the agreed limitations.

b. FAR 31.205-18 and DFARS 231.205-18 no longer require advance agreements for IR&D and B&P costs for CFYs that began after September 30, 1992. However, for larger contractors that incur substantial IR&D and B&P cost certain ceiling limitations apply for the three CFYs beginning after September 30, 1992. For CFYs 1996 and beyond, there is no requirement to calculate or negotiate a ceiling for IR&D and B&P costs.

c. Advance agreements covering forward pricing indirect cost rates may be entered into between contractors and contracting officers to reduce the time and effort required to evaluate the indirect cost rates used in each contract proposal. (See 9-1200 on forward pricing rate agreements). Circumstances on which the rates were developed may be subject to change or the contemplated procurement in itself may invalidate the propriety of the agreed upon rates. The auditor should not accept the rates without determining that they are reasonable and appropriate for the procurement being evaluated (see 9-312).

9-703.4 Allocation Bases **

a. An equitable allocation of indirect costs to jobs, departments, processes, or cost centers is dependent upon the bases used. Bases commonly used include direct labor dollars, direct labor hours, production costs, input costs, and cost of sales. With the advent of technologically advanced manufacturing machinery, bases such as machine hours, process time, and operational movements will become more widely used (see 6-606.3c., 6-610.2e., and 9-702.2).

b. The evaluation of the bases used involves a determination of the accuracy of the data included in the base and equity of the resulting allocation. Because movement to an ACMS can encompass new types of allocation, the contractor may not be able to support the proposed base with accumulated historical data. The contractor may have to support the proposed base with a combination of documentation, such as production projections, historical data, employee interviews, manufacturer machine capability, and specifications and engineering analysis. Auditors should be open to verifiable forms of documentation which may be generated by the new system.

c. The auditor should review the FAO audit of mandatory annual audit requirement No. 18 related to indirect allocation bases (see 6-606). In evaluating allocation bases, the auditor should determine that the base estimates reflect valid trends. Trends may be evaluated through analysis of ratios, budgets, and sales and production volume forecasts. Anticipated changes, such as proposed increases or decreases in wage rates and material prices or implementation of modernized manufacturing processes and practices, should also be considered when such factors will influence the base.

d. The auditor should review the applicable portions of the SEC filings to determine if off-balance sheet arrangements or related party transactions exist. If any off-balance sheet arrangements or related party transactions exist and receive benefits of the parent company or a segment, determine that those entities are included in the appropriate allocation bases for an equitable share of indirect costs.

9-703.5 Individual Indirect Costs **

The auditor should review selected accounts included in the indirect cost pools to evaluate the reliability of specific estimates. In evaluating projections, the auditor must consider historical cost patterns and the probable effect of anticipated changes. The auditor should review the FAO audit of mandatory annual audit requirements related to indirect cost comparison with prior years and budget (No.15), and indirect account analysis (No.16). In selecting accounts to be audited, the auditor should consider the following:

a. Indirect costs questioned in prior periods, especially those expressly unallowable, that are required to be eliminated by CAS 405,

b. Indirect costs of a nonrecurring nature,

c. Indirect costs that are usually recovered as direct charges or in separate loading factors, such as packaging or obsolescence,

d. Indirect costs which show significant differences between historical cost and estimated cost,

e. Indirect costs of a semi-variable or variable nature which do not show significant differences between historical cost and estimated cost despite a significant change in volume, and

f. Indirect cost of a nonvariable nature which show significant variations between historical cost and the proposed estimated cost.

9-703.6 Indirect Labor **

Indirect labor usually represents a substantial portion of indirect costs. The auditor should review the FAO audit of mandatory annual audit requirement related to changes in direct/indirect charging (No.7). In evaluating indirect labor, the auditor should analyze variable, semi-variable, and nonvariable classifications of indirect labor in a current representative period. The ratios of each category to direct labor should be computed and compared with similar ratios for estimated cost. Projections of indirect labor requirements and the related costs can also be compared with manpower budgets. Indirect labor wage rates may be verified by reviewing personnel or payroll records. When projected costs include wage increases, the auditor should ascertain whether the proposed increases have been approved by management and are in accordance with applicable agreements.

9-703.7 Indirect Material **

It is desirable to differentiate the treatment of the nonvariable, semi-variable, and variable components of indirect material cost contained in the contractor's projection. Ratios of these expense classifications to appropriate bases should be computed only when practical. To further facilitate evaluation, similar ratios can be computed from historical cost data. Categorizing the recorded indirect materials into these classifications requires that the auditor exercise judgment in determining whether the additional evaluation effort needed for this type of analysis is warranted. For instance, when the contemplated procurement is not large in dollar amount, it is probable that treatment of indirect material expense as variable with the level of production activity would be expedient. Comparisons may be made of estimated requirements with budget requirements or estimated prices with current prices. When the proposed contract is a fixed-price incentive type with successive targets, or a fixed-price contract with prospective price redetermination and the contractor expenses the cost of indirect materials at the time of purchase, the auditor should recommend the establishment and maintenance of indirect material inventories. Implementation of this recommendation would preclude the loading of indirect material costs during the experienced or retroactive portion of the contract.

9-703.8 Payroll Costs - Estimated Taxes and Fringe Benefits **

a. After establishing the estimated total direct and indirect labor requirements, the auditor should evaluate related payroll costs. The provisions of union wage agreements and the possible effect of anticipated wage negotiations should be evaluated to establish the validity of employee benefit costs included in the cost estimate. The auditor should be aware in evaluating the estimate for payroll taxes that assessments cease upon reaching the taxable pay ceiling. The extent of labor turnover will influence the projections for payroll tax estimates; when turnover is low, the cost will be semi-variable in nature, when the turnover is high, the cost may be more variable in nature. The auditor should evaluate rates for unemployment insurance to determine if the estimate reflects possible adjustments in the rate.

b. Pension and retirement plan costs frequently are related to payroll costs. In evaluating the reasonableness of pension and retirement costs, the auditor should perform the following steps:

(1) Determine that the amount projected is in accordance with the company plan.

(2) Ascertain that the pension plan has been approved by the Internal Revenue Service, and by the Department of Defense, if required.

(3) Determine that proper adjustment has been made for any reversionary credits that may be due.

(4) Determine that when rates are based upon actuarial data and have recently been revised or are scheduled to be revised, the effect of the new rates has been considered.

(5) Verify that the contractor has used the pension plan's long-term valuation interest rate to estimate the pension plan's actual return on assets in computing the projected pension costs and in determining if the projected pension costs will be limited by the assignable cost limitation (i.e., if the actuarial value of assets exceeds the actuarial accrued liability plus current normal costs). Since volatility in the equity and bond markets makes predicting the actual rate of return on assets speculative at best, the contractor's long-term valuation interest rate (i.e., the rate used to compute the CAS 412 pension cost) is the best available estimate of the actual rate of return on assets. Accordingly, projected pension costs resulting from the use of a rate of return on assets less than the contractor's assumed long-term valuation interest rate should be questioned. The risk in this area is greatest when the pension plan is at or near full funding status. If the contractor's pension plan is at or near full funding status, the auditor may need to advise the contracting officer of the risk associated with such circumstances, even when there is no questioned pension cost. (See 10.304.7d(2).)

(6) Review the history of the contractor's estimating procedures to determine if forward pricing projections for prior years have exceeded actual pension costs for those periods. If the history indicates a pattern of excess pension projections that is attributable to substantial actuarial gains, then an analysis of the effect of the actuarial assumptions on the forward pricing projections should be performed.

(7) If a CIPR review is planned to be performed by the cognizant DCMA CIPR team, contact the ACO and obtain pertinent information on the plan's funding level, including any technical analysis that may impact forward pricing projections.

(8) If a CIPR review is not planned or has not been performed within the past year, and pension costs have a material impact on forward pricing rates, request assistance from the DCMA Insurance/Pension Specialist in the review of estimated pension cost and/or pension funding level.

9-703.9 Plant Rearrangement **

Plant rearrangement costs may result from the introduction of new products, consolidation or expansion of departments, changes in production requirements, or changes in manufacturing techniques. In evaluating the detail supporting the projection of plant re-arrangement cost, the auditor should determine that like costs which will be reimbursable as direct costs under other contracts have been excluded from the estimate. Plant rearrangement costs applicable to a specific contract or project are normally not included in an indirect cost pool; plant rearrangement costs beneficial to all production effort are generally included in indirect costs. The guidance in Chapter 8 on CAS 402 should be applied to insure that plant rearrangement costs incurred for the same purpose are allocated only once and only on one basis. The auditor should review the plant rearrangement cost pattern in prior periods and compare actual costs incurred with previous estimates in evaluating the reliability of the current estimate. The auditor should be alert to costs categorized by the contractor as plant rearrangement but where the circumstances would indicate that they should more properly be included under the classification of "Plant Reconversion Costs". The definition and treatment of this latter category of costs are covered in FAR 31.205-31. The advice of Government technical personnel should be solicited to establish the necessity and reasonableness of proposed significant rearrangement costs.

9-703.10 Depreciation **

The auditor should be familiar with current Internal Revenue guidelines and CAS 404 (Capitalization) and 409 (Depreciation). The contractor's forecasts for depreciation should be evaluated using Internal Revenue guidelines as recognized by current DoD instructions and in such Cost Accounting Standards as CAS 404 and 409 where applicable. The auditor should evaluate the necessity for new acquisitions, review the contractor's capital replacement or acquisition policy and ascertain whether:

(1) acquisitions have been approved by management,

(2) actual commitments have been made, and

(3) proper consideration has been given to lead time, installation costs, and rearrangement expenses (see Selected Areas of Cost guidebook, Chapter 19).

9-703.11 Rent **

Estimated rentals of machinery and equipment should be compared with costs incurred for rentals. Rental agreements should be evaluated to ascertain expiration dates and renewal and purchase options. The auditor's attention is particularly directed to FAR 31.205-36 for guidance in determining the reasonableness and acceptability of rental costs (including the sale and leaseback of facilities). In this connection, special emphasis should be on evaluating the contractor's policies and practices where significant portions of the plant and facilities are acquired by renting in lieu of purchase.

9-703.12 Occupancy Cost **

The auditor should evaluate the reasonableness of costs associated with the use and occupancy of the contractor's facilities. These costs include insurance, taxes, heat, light, guard services, and maintenance expense. The evaluation should include a review of insurance coverage, tax records, assessment notice, utility bills, security requirements, and a comparison of estimated costs with the historical pattern of expense.

9-703.13 Excess Facilities **

The auditor should determine whether estimated expenses for depreciation, rent, and occupancy include costs generated by excess facilities. When it is determined that costs attributable to excess facilities are included in the estimate, the auditor should be guided by FAR 31.205-17 and the provisions of the proposed contract. The auditor should consider any trends which might indicate the probability that excess facilities will develop during the period of the contract. An analysis of the contractor's budgets should provide insight in this area. Factors which may create excess facilities include reduced workload, acquisition of additional facilities, and shutdown of existing facilities. When the auditor's evaluation indicates the probability of a significant increase in costs of excess facilities which will be allocated to the proposed contract, the auditor should recommend that the contract contain appropriate dollar limitations.

9-703.14 Corporate or Home Office Assessments **

Indirect cost forecasts made by an operating division will usually include the anticipated home office assessment to that division. The reasonableness of the assessment should be evaluated on the basis of services to be rendered or available to the operating division. The bases of assessment should be evaluated to determine that all components of the company bear an equitable share. An accurate determination at the operating level may prove difficult and may include proration of unallowable home office and corporate expenses. When the amounts involved are significant, an assist audit of the home office expenses should be requested. The auditor at the operating unit should furnish the assist auditor with sufficient data as to the contemplated level of activity of the operating unit during the proposed contract period to enable the home office auditor to render an opinion as to the appropriate participation of the operating unit in the total allocable home office expense. When feasible, the home office auditor should arrange for the periodic audit of forward pricing home office rates applicable to operating divisions which have significant amount of Government business. The results of the audits should be forwarded to the auditors at the operating units for their use in evaluating proposals (see 6-804).

9-703.15 Miscellaneous Income and Credit Adjustments **

The auditor is concerned with credit adjustments to indirect accounts, credits to direct accounts which should have been credited to indirect accounts, and miscellaneous income which has not been credited either to indirect or direct accounts.

He or she must consider whether the amount is correct, whether the period in which the adjustment or income is credited is appropriate, and whether the accounting treatment is acceptable.

a. As a minimum the audit should include a review of the contractor's financial statements, including the statements of cash flow, miscellaneous income accounts, and journal vouchers. The auditor should analyze the trends of the credit items in the periods covered by the estimate.

b. The auditor may find that the indirect expense pools have not been reduced by the amount of income received from such sources as scrap sales and rentals. Cash discounts taken and trade discounts may have been credited to income accounts.

c. Credit adjustments should be reflected in the indirect cost pools for amounts chargeable directly to contracts and amounts chargeable directly to termination proposals. The auditor should review the anticipated activity for contracts for technical services, overhaul, spare parts, and facilities, the costs of which are wholly or partially recovered either directly or on a fixed rate basis.

d. Credit adjustments should be applied against the expense originally charged; however, when the application of the credit would distort the expense projection, the credit should be shown separately as a reduction of the total indirect cost pool. Examples of such credit adjustment are worker's compensation insurance refunds, price adjustments on material purchases, and insurance payments under casualty claims.

9-703.16 Independent Research and Development and Bid and Proposal Costs **

FAR 31.205-18 sets forth certain rules and procedures for establishing the allowability of IR&D and B&P costs. For CFYs beginning after September 30, 1992, the ceiling limitations have been removed for most contractors. However, ceiling limitations are still in place for three full CFYs after September 30, 1992 for larger contractors with substantial amounts of IR&D and B&P costs. For CFYs 1996 and beyond, the ceiling limitation is removed. IR&D and B&P costs forecast for these contractors should consider these limitations until they are removed. For those contractors where ceiling limitations are no longer applicable, the forecasted IR&D and B&P costs still need to be allowable, allocable, and reasonable and be of potential interest to DoD (see Selected Areas of Cost guidebook, Chapter 33).

9-704 Evaluation of Prospective Rates -- Indirect Costs **

9-704.1 Evaluation of Rate **

Indirect costs, while expressed as dollars, are calculated by the application of a rate to a selected cost base. To properly evaluate the acceptability and reasonableness of the contractor's indirect cost rates, the auditor should review the period covered by the rate and the propriety of the rate structure by which indirect costs are allocated to cost objectives.

9-704.2 Rate Period **

a. The auditor should determine whether the period used in developing an indirect cost rate is appropriate for the contemplated period of contract performance. For example, if the rate used is based on projections covering a one year period and the period of contract performance is expected to cover two years, the rate may not be appropriate for the second year. When unable to support the use of such a single rate, the contractor should be requested to submit rates for the subsequent periods involved. When the period used by the contractor coincides with the period of contract performance, the auditor should determine that consideration has been given to all work anticipated during the forecast period which might influence the indirect cost rate. In evaluating the reasonableness of costs contained in long range estimates, the auditor may be confronted with an unwillingness on the part of the contractor to submit supporting data or an inability to submit reliable data. When there is reason to believe the contractor has data that relates to an estimate but is unwilling to submit it, the auditor should so notify the contracting officer and recommend that the contractor be required to make such data available (see also 1-500).

b. Long range projections may lack sufficient data on which to base a reliable estimate. When the estimates are not susceptible to a reasonable evaluation, the auditor should so inform the contracting officer and make appropriate recommendations. For example, the auditor might recommend that a proposed award be made on a flexible price basis in accordance with the provisions of FAR Part 16/DFARS Part 216, particularly when uncertainties in the long term indirect cost forecasts are combined with the possibility of contract changes and the indefinite nature of the particular Government program.

c. CAS 406 "Cost Accounting Period" was established to provide criteria for selecting time periods to be used as cost accounting periods for contract cost estimating, accumulating, and reporting. The Standard will reduce effects of variations in the flow of costs within each cost accounting period (see 8-406).

9-704.3 Propriety of Rate Structure **

The equity of the allocation of indirect cost is dependent upon an evaluation of the rate structure. Contractors may compute separate indirect cost rates for indirect costs such as manufacturing expense or engineering expense, and the bases used in the computation of indirect cost rates may vary. Contractors modifying their cost accounting systems to an advanced cost management system may adopt the use of multiple rates (see 6-606.2c. and 6-608.1c.). Contractors must use the same rate structure for estimating purposes as they do for historical costing purposes. When a contractor employs a different rate structure for cost estimates, the auditor should inquire whether a change in its accounting system is planned. If a change is planned, the contractor must submit a cost impact statement resulting from the change and agree to an adjustment as required by FAR 52.230-6 of the CAS administration clause (see 8-500). The auditor should evaluate the change to determine if the different method causes inequitable results and the validity of the cost impact statement. A change in method is not improper by itself. The auditor should recognize that the impact of current procurement, changes in production mix, modernization of manufacturing processes and practices, and other factors may necessitate the revision of an existing rate structure to provide equitable cost allocations. The criteria used in determining the propriety of the number and types of indirect cost rates appropriate under varying conditions and the propriety of the related proration bases are discussed in 6-600.

9-704.4 Ceiling Rates **

Indirect cost rates may be subject to sharp fluctuations. In periods of declining workloads, for example, indirect cost rates tend to increase because nonvariable costs are spread over a smaller allocation base. In the case of a corporate reorganization or a realignment of management functions, additional costs may be incurred which may result in an increase in indirect cost rates. When the auditor's evaluation indicates the possibility of a decline in workload, a change in management functions or any other factor which would result in significant fluctuations in the rates, the auditor should determine the effect on the rate computation. Where warranted, the auditor should recommend ceilings in the indirect cost rates to prevent the acceptance of an unreasonable amount of indirect costs in the negotiation of the contract price.

9-800 Section 8 - Economic Price Adjustments **

9-801 General **

There are essentially two ways that contract prices can reflect the impact of inflation over the contract performance period.

a. In the most widely used method, the proposed contract price includes current estimates of wages and prices the contractor expects to experience during contract performance. The preferred bases for current estimates are forecasts of future wage and price indices prepared by qualified, professional economists. Their predictions are based on econometric computer models of the U.S. economy which consider a large number of factors that influence wages and prices. Accordingly, when evaluating proposals by this method, refer to the DCAA intranet Economic Indices webpage.

b. Alternatively, the contractor may price the contract proposal with or without escalation and may propose an economic price adjustment (EPA). This arrangement is appropriate when there is serious doubt about the stability of future market or labor conditions during an extended contract performance period. When such expectations are not included in the contract price, and they can be separately identified, they may be covered by an EPA contract clause. The EPA clause establishes the terms and mechanism for granting an adjustment due to inflationary cost increases.

c. Use of EPAs have increased, primarily because of potential inequities that fixed-price contracting can produce in periods of economic uncertainty. The intention of such adjustments are to protect both the Government and the contractor from the effects of abnormal wage and/or price changes (increase/decrease) which could cause significant losses or windfall gains for reasons beyond the control of the contracting parties.

d. Contracting officers may request assistance from DCAA when contemplating the use of an EPA clause (DFARS PGI 216.203-4). When a request for assistance is received, the auditor should communicate with the requester and establish an understanding with the requester on the objectives and type of services they will perform.

9-802 Types of Economic Price Adjustments **

FAR 16.203-1 specifies three basic types of EPAs and 16.203-4 addresses applicable contract clause coverage.

a. The first type provides for adjustments based on established prices. It is used where basic commodities and commercial products (i.e., steel, aluminum, brass, bronze, copper, and standard supplies) comprise a major portion of the contract work. Price adjustments are based on an increase or decrease from a specified level in published or established prices of either specific items or price levels of contract end items.

b. The second type provides for adjustments based on the contractor's experienced labor or material costs and is commonly referred to as the actual cost method. This type of adjustment is used when there is no major element of design engineering or development work involved and one or more identifiable labor or material cost factors are subject to change. Price adjustments are based on an increase or decrease in specified costs of labor or material actually experienced by the contractor during performance of the contract.

c. The third type is referred to as the cost index method. This method is based on increases in labor or material cost standards or indexes that are specifically identified in the contract. It is used when there will be an extended period of performance and the amount subject to adjustment is substantial. Although many variations can be developed, one approach is to select representative BLS labor and material indices and project them into the future. Price adjustments result only if the actual indices are outside a defined range about the projections.

9-803 Unsatisfactory Conditions **

Auditor vigilance is necessary to preclude unsatisfactory conditions as envisioned by 4-803. While the auditor should be involved in preaward economic decisions, it may not always be possible to do an audit evaluation before execution of the contract; such action may not be requested or time may not permit an audit based on the auditor's initiative. At all times, but especially when this is the case, the auditor must be alert to possible contractor windfall profits or other excessive cost recoveries due to the operation of the EPA clause. The auditor should advise the contracting officer when detecting these conditions. All remedies should be exhausted at the FAO and regional level. If the situation continues, however, and resolution by the FAO or the regional office seems improbable, the auditor should report the condition in accordance with 4-803.

9-804 Proposed Economic Adjustments - Evaluation Techniques and Considerations **

a. Techniques to evaluate costs/prices subject to EPAs are dependent on:

(1) the appropriate contract clause,

(2) the contractor's accounting system, and

(3) other factors relevant to the proposed acquisition.

As appropriate, use evaluation techniques in the preceding sections of this chapter.

b. The evaluation techniques used in the audit of an adjustment under an EPA clause should be selected to assure that:

(1) economic factors already contained in the original price proposal are not duplicated,

(2) the base period of the contract clause is the same period used to establish the base price,

(3) the contemplated clause is the most appropriate for the anticipated contract environment,

(4) the contractor's accounting system is capable of identifying and segregating the specific economic costs subject to adjustment from those attributable to qualitative and/or quantitative changes,

(5) an adjustment will be made for only those economic changes beyond the control of the contractor, and

(6) for the EPAs based on established prices and actual cost, that the aggregate price of increases shall not exceed 10 percent of the original contract price (FAR 52.216-2 through .216-4). (The Chief of the Contracting Office may modify this limitation upwards.)

9-805 Unsatisfactory Conditions **

Auditor vigilance is necessary to preclude unsatisfactory conditions as envisioned by 4-803. While the auditor should be involved in preaward economic decisions, it may not always be possible to do an audit evaluation before the contract is executed; such action may not be requested or time may not permit an audit based on the auditor's initiative. At all times, but especially when this is the case, the auditor must be alert to possible contractor windfall profits or other excessive cost recoveries due to the operation of the EPA clause. When these conditions are detected the contracting officer should be advised. All remedies should be exhausted at the FAO and regional level. If the situation continues, however, and resolution by the FAO or the regional office seems improbable, the condition should be reported in accordance with 4-803.

9-900 Section 9 - Profit in Price Proposals **

9-901 Introduction **

a. This section provides guidance on the auditor's responsibilities related to profit or

fee included in the contractor's price proposal. For guidance on the auditor responsibility at the prime/higher-tier contractor level regarding profit in a subcontractor proposal, see 9-104.6 Subcontractor Proposed Profit.

b. FAR 15.404-4/DFARS Subpart 215.404-4 state the Government and DoD policies and procedures for determining profit and fee objectives for negotiated contracts. It is in the Government's interest and, therefore, the general policy of DoD and civilian agencies to offer contractors opportunities for financial rewards sufficient to stimulate efficient contractor performance, attract the best capabilities of qualified contractors, and maintain a viable industrial base.

9-902 Weighted Guidelines for DoD Profit Policy **

a. The weighted guidelines method set forth in DFARS 215.404-71 is generally prescribed for use by contracting officers in computing the profit objective to be used in negotiating contracts with commercial organizations where cost analysis is performed (see 9-903 for other methods). Under this method, the contracting officer is required to perform the profit analysis necessary to develop a prenegotiation objective for each contract action. The weighted guidelines method expressly takes into account:

(1) the contractor's degree of performance risk in producing the goods or services purchased under the contract action,

(2) the contract-type risk assumed by the contractor under varied contract and incentive arrangements,

(3) the level of working capital needed for contract performance,

(4) the nature of the contractor's facilities capital to be employed, and

(5) contractor cost reduction efforts that the contractor can demonstrate will benefit the pending contract.

b. Contractors are encouraged to present the details of proposed profit amounts in the weighted guidelines format. This would facilitate a more complete discussion of the individual factors that will determine the overall profit objective. The contracting officer is required to utilize the weighted guidelines method in establishing a profit objective for each applicable negotiated contract and to document the files accordingly. This "initial" profit objective is, of course, subject to later discussion and revision, as part of the overall price negotiated for the contract. In establishing a profit objective for a prospective contract award, the contracting officer is required to consider all pertinent information, including audit data, available prior to negotiation. It is not, however, intended that the profit objective be computed based on precise mathematical calculations, particularly for sub-elements of the major profit factors.

9-903 Other Methods for Establishing DoD Profit Objectives **

Other methods for establishing profit objectives may be used for the contract types

set forth in DFARS 215.404-73. Generally, it is expected that such methods will ensure that the appropriate profit factors and the relative values of these factors are considered. In addition, DFARS 215.404-72 describes the modified weighted guidelines method for nonprofit organizations. The procedures for establishing fee provisions on cost-plus-award-fee contracts are described in DFARS 216.405-2 and 215.404-74. Note that it does not permit the use of the weighted guidelines method.

9-904 Civilian Agency Profit Policies and Procedures **

Civilian agencies' profit policies and procedures are contained in FAR 15.404-4 and those agencies' FAR supplements to 15.404-4. These policies also provide for a structured approach to the profit objective to be used in negotiating contracts with commercial organizations where cost analysis is performed. NASA uses the structured approach, which considers contractor effort in each cost category, cost risk, investment, performance, socioeconomic programs, and special situations. DOE uses weighted guidelines, which consider sub-levels of the cost elements, contract risk, capital investment, independent research and development, special program participation, and other considerations. DOT uses weighted guideline methods for manufacturing contracts, research and development contracts, and services contracts. Risk percentage ranges are provided by contract type for each of the contract categories. GSA uses a structured approach that considers material acquisition, conversion direct labor, conversion related indirect costs, other costs, and general management. Other factors include contract cost risk, capital investment, cost control and other past accomplishments, Federal socioeconomic programs, and special situations and independent development.

9-905 Responsibility for Evaluation of Proposed Profit **

a. Contracting Officer. After evaluating the contractor's cost proposal and establishing negotiation objectives on cost, the contracting officer is responsible for using the weighted guidelines method under DFARS 215.404-71 to complete DD Form 1861, Contract Facilities Capital Cost of Money. The completion of this form is a prerequisite to the completion of DD Form 1547, Record of Weighted Guidelines Application. These two forms are shown in DFARS 253.303-1861 and 253.303-1547, respectively. Note also that the contracting officer may request completion of these forms through normal field pricing support procedures (see 9-103 and DFARS 215.404).

b. DCAA. The auditor is responsible for determining that the contractor's financial and cost data supporting the profit allowance is fairly stated, and preparing report comments on this determination. Examples of appropriate areas for comment are provided in the following paragraphs on specific profit factors. However, see 9-906.6 on limitations.

9-906 Audit Policies -- Profit Evaluations **

In conjunction with the evaluation of the price proposal, examine the contractor's

profit submission and books and records to develop comments on the major profit factors for inclusion in the audit report. Direct comments toward assisting the contracting officer in developing a profit objective for the contract and conducting the profit negotiations with the contractor. When methods other than weighted guidelines are used for establishing profit objectives, develop comments similar to those required under contracts where weighted guidelines apply. A percentage computation should not be shown in the report nor should the contractor's requested profit percentage be related to questioned costs. Also note that it is not Agency policy to initiate completion of the profit form, DD Form 1547, although the auditor may assist in evaluating or completing this form if specifically called upon to do so by the contracting officer.

9-906.1 Contractor Performance Risk **

This factor under DoD weighted guidelines addresses the contractor's risk in fulfilling contractual requirements through consideration of two broad categories (technical and management/cost control). The auditor may include comments on these categories to assist the contracting officer in determining whether the profit objective for each category should be set toward the lower or upper level of the established percentage range. Examples of areas for comment include: reliability of management and internal control systems, reliability of cost estimates and the contractor's cost estimating system, and cost reduction initiatives and cost control (see DFARS 215.404-71-2).

9-906.2 Contract-Type Risk and Working Capital Adjustment **

a. This profit factor under DoD weighted guidelines focuses on the degree of cost responsibility accepted by the contractor under varying contract structures and incentive arrangements. When appropriate, comment on the availability or extent of cost history, the length of the performance period, the extent of effort subcontracted, and the extent of any costs already incurred under an undefinitized contract action (see DFARS 215.404-71-3).

b. For fixed-price contracts with progress payment provisions, the contracting officer calculates an adjustment to consider working capital needs and adds it to the contract-type risk factor. With regard to this adjustment, comment on the accuracy of allowable costs, whether the costs properly exclude facilities capital cost of money (FCCOM), and the accuracy of the deduction for progress payments (see DFARS 215.404-71-3(e)(3)). Note that the working capital adjustment is based on the contractor financed portion of total cost including G&A.

9-906.3 Facilities Capital Employed **

a. This profit factor under DoD weighted guidelines recognizes the contractor's facilities capital to be employed during contract performance. The amount of recognition is separated among asset categories in proportion to the potential for productivity. The asset categories are land, buildings, and equipment. The designated profit rate ranges are 0 percent for land, 0 percent for buildings, and 10 to 25 percent for equipment. Note that profit recognition is limited to the investment in equipment. The auditor may comment on the accuracy and distribution of the facilities capital employed

among the asset categories or on the extent of idle facilities (see DFARS 215.404-71-4).

b. No fee or profit will be allowed under a "facilities contract" (see FAR 45.302-2(c)) or for facilities purchased "for the account" of the Government under any other type of contract (see FAR 45.302-3(c)).

9-906.4 Cost Efficiency Factor **

This profit factor under the DoD weighted guidelines is to provide an incentive for contractors to reduce costs. The profit objective may be increased if the contractor is able to demonstrate cost reduction efforts that benefit the prospective contract. When appropriate, the auditor may include comments relating to any cost reduction efforts claimed by the contractor. These efforts may include the contractor's participation in Single Process Initiative improvements, elimination of excess or idle facilities, or other cost reduction initiatives employed by the contractor (see DFARS 215.404-71-5).

9-906.5 Offsets – Profit Evaluations **

Be alert to the alternate approaches to the weighted guidelines method and that offset policies apply to certain pricing actions. DFARS 215.404-71-3(c)(3), 215.404-72(c), 215.404-73(b)(2) and 215.404-74(c) address specific types of offsets or exclusions in establishing a fee/profit objective. Concurrently, if the contractor does not elect to claim or propose FCCM, recommendations should be made to insert the clauses at FAR 52.215-16 and -17 into the contract, if not already incorporated in the solicitation.

9-906.6 Limitations **

Establishment of an appropriate profit allowance is a crucial aspect of most contract negotiations. Except for the comments suggested above, which are intended to help the contracting officer by furnishing the information that he or she will usually wish to consider, the auditor will not initiate action in the profit area except upon specific contracting officer request. In this event, the auditor's effort will be limited to furnishing the information or factual data requested.

9-1000 Section 10 - Audit of Parametric Cost Estimates **

9-1001 Introduction **

This section contains an overview and general guidance on auditing cost-to-noncost estimating relationships, primarily in the context of contractor price proposals. This section also contains guidance on the use of estimating standards in price proposals. It supplements guidance provided in this chapter and referenced appendixes, which is applicable to proposal audits regardless of the cost estimating methods used. More detailed guidance can be found in Appendix B-400, Cost Estimating Methods. This supplementary guidance contains criteria contractors should meet before submitting proposals based on parametric cost estimates.

9-1002 Parametric Estimating Terminology **

9-1002.1 Definition of Parametric Cost Estimating **

a. Parametric cost estimating ("parametrics") has been defined as a technique employing one or more cost estimating relationships (CERs) to estimate costs associated with the development, manufacture, or modification of an end item (See B-405b). A CER expresses a quantifiable correlation between certain system costs and other system variables either of a cost or technical nature. CERs are said to represent the use of one or more independent variables to predict or estimate a dependent variable (cost).

b. Parametrics encompasses even the simplest traditional arithmetic relationships among historical data such as simple factors or ratios used in estimating scrap costs. However, for audit purposes our guidance will limit special consideration of parametrics to more advanced or complex applications. These may involve extensive use of cost-to-noncost CERs, multiple independent variables related to a single cost effect, or independent variables defined in terms of weapon system performance or design characteristics rather than more discrete material requirements or production processes. IT data bases and/or computer modeling may be used in these types of parametric cost estimating systems.

c. Parametric estimating techniques may be used in conjunction with any of the following estimating methods:

(1) Detailed - also known as the bottom-up approach. This method divides proposals into their smallest component tasks and are normally supported by detailed bills of material.

(2) Comparative - develops proposed costs using like items produced in the past as a baseline. Allowances are made for product dissimilarities and changes in such things as complexity, scale, design, and materials.

(3) Judgmental - subjective method of estimating costs using estimates of prior experience, judgment, memory, informal notes, and other data. It is typically used during the research and development phase when drawings have not yet been developed.

9-1002.2 Distinction Between Cost and Noncost Independent Variables **

a. Although the basic criteria for cost-to-cost and cost-to-noncost CERs are generally comparable, the supplementary criteria in this section pertain to cost-to-noncost CERs. Audits of traditional cost-to-cost estimating rates and factors are covered in other sections of this chapter and in referenced appendixes.

b. Cost-to-noncost CERs are CERs which use something other than cost or labor hours as the independent variable. Examples of noncost independent variables include end-item weight, performance requirements, density of electronic packaging, number or complexity of engineering drawings, production rates or constraints, and number of tools produced or retooled. CERs involving such variables, when significant, require that the accuracy and currentness of the noncost variable data be audited. Special audit considerations are described in the following sections.

9-1002.3 Uses of Parametric Cost Estimates **

a. Parametric cost estimating is used by both contractors and Government in planning, budgeting, and executing the acquisition process. Parametric cost models are generally made up of several CERs and can be used to estimate the costs for part of a proposal or the entire proposal. The cost models are often computerized and may be made up of both cost-to-cost and cost-to-noncost interrelated CERs. The guidance contained in this chapter is intended to assist in the audit of parametric estimates, CERs, and/or cost models used in developing price proposals for negotiation of Government contracts.

b. Parametric cost estimates are often used to crosscheck the reasonableness of estimates developed using other estimating methods. Generally, it would not be prudent to rely on parametric techniques based on a broad range of data points to estimate costs when directly applicable program or contract specific historical cost data is available, as in the case of follow-on production for the same hardware in the same plant. Nor would parametric techniques be appropriate for contract pricing of specific elements such as labor and indirect cost rates which require separate forecasting considerations such as time and place of contract performance. The use of a parametric estimating method is considered appropriate, for example, when the program is at the engineering concept stage and the program definition is unclear, or when no bill of materials exists. In such cases, the audit evaluation should determine that:

(1) the parametric cost model was based on historical cost data and/or was calibrated to that data, and

(2) the contractor has demonstrated that the CER or cost model actually reflects or replicates that data to a reasonable degree of accuracy.

9-1003 Parametric Estimating Criteria for Price Proposals **

When a contractor uses parametric cost estimating techniques in a price proposal, the auditor will apply all pertinent criteria applicable to any proposal along with the supplemental criteria provided in 9-1004.

9-1003.1 Disclosure of Parametric Estimating Data **

a. The purpose of 10 U.S.C. Chapter 271: Truthful Cost or Pricing Data (Truth in Negotiations) is to provide the Government with all facts available to the contractor at the time of agreement on price of the contract and that the certified cost or pricing data was accurate, complete, and current (see 14-100). Parametric estimates must meet the same basic disclosure requirements under the act as detailed estimates.

b. Although the principles are no different, proposals supported in whole or in part with parametric estimating will present new fact situations concerning cost or pricing data which is required to be submitted. A fundamental part of the definition of cost or pricing data is "all facts . . . which prudent buyers and sellers would reasonably expect to have a significant effect on price negotiations" (FAR 2.101). Reasonable parallels may be drawn between the data examples provided in FAR for discrete estimating approaches and the type of data pertinent to parametric estimating approaches. For example, if a contractor uses a cost-to-noncost CER in developing an estimate, the data for the CER should be current, accurate, and complete (see B-406f).

c. Many contractors use parametric cost estimating for supplementary support or for crosschecking estimates developed using other methods. Judgment is necessary in selecting the data to be used in developing the total cost estimate relied upon for the price proposal. In distinguishing between fact and judgment, FAR states the certificate of cost or pricing data "does not make representations as to the accuracy of the contractor's judgment on the estimated portion of future costs or projections. It does, however, apply to the data upon which the contractor's judgment is based" (FAR 15.406-2(b)). Therefore, if a contractor develops a proposal using both parametric data and discrete estimates, it would be prudent to disclose all pertinent facts to avoid later questions about full disclosure (see B-406f.).

9-1003.2 Evaluation of Parametric Cost Estimates **

The auditor should address the following questions during the evaluation of parametric cost estimates:

- Do the procedures clearly establish guidelines for when parametric techniques would be appropriate?
- Are there guidelines for the consistent application of estimating techniques?
- Is there proper identification of sources of data and the estimating methods and rationale used in developing cost estimates?
- Do the procedures ensure that relevant personnel have sufficient training, experience, and guidance to perform estimating tasks in accordance with the contractor's established procedures?
- Is there an internal review of and accountability for the adequacy of the estimating system, including the comparison of projected results to actual results and an analysis of any differences?

9-1004 Supplemental Estimating Criteria **

The auditor should also consider the following supplemental criteria when evaluating parametric cost estimates.

9-1004.1 Logical Relationships **

The contractor should demonstrate that the cost-to-noncost estimating relationships used are the most logical. A contractor should consider all reasonably logical estimating alternatives and not limit the analysis to the first apparent set of variables. When a contractor's analysis discloses multiple alternatives that appear logical, statistical testing (see 9-1004.3) of selected logical relationships may be used to provide the basis for choosing the best alternative.

9-1004.2 Verifiable Data **

The contractor should demonstrate that data used for parametric cost estimating relationships can be verified. In many instances the auditor will not have previously evaluated the accuracy of noncost data used in parametric estimates. For monitoring and documenting noncost variables, contractors may have to modify existing information systems or develop new ones. Information that is adequate for day-to-day management needs may not be reliable enough for contract pricing. Data used in parametric estimates must be accurately and consistently available over a period of time and easily traced to or reconciled with source documentation.

9-1004.3 Statistical Validity **

The contractor should demonstrate that a significant statistical relationship exists among the variables used in a parametric cost estimating relationship. There are several statistical methods such as regression analysis that can be used to validate a cost estimating relationship; however, no single uniform test can be specified. Statistical testing may vary depending on an overall risk assessment and the unique nature of a contractor's parametric data base and the related estimating system. Proposal documentation should describe the statistical analysis performed and include the contractor's explanation of the CER's statistical validity. See the Graphic & Regression Analysis guidebook for information on techniques which may be used in the evaluation of the cost estimating relationships.

9-1004.4 Cost Prediction Results **

The contractor should demonstrate that the parametric cost estimating relationships used can predict costs with a reasonable degree of accuracy. As with the use of any estimating relationship derived from prior history, it is essential in the use of parametric CERs for the contractor to document that work being estimated is comparable to the prior work from which the parametric data base was developed.

9-1004.5 System Monitoring **

The contractor should ensure that cost-to-noncost parametric rates are periodically monitored in the same manner as cost-to-cost rates and factors. If a CER is validated and will only be used in a onetime major new pricing application, rate monitoring capability is not essential. However, if it is expected that the rates should be considered as an ongoing estimating technique, CER monitoring is critical. The contractor should revalidate any CER whenever system monitoring discloses that the relationship has changed.

9-1005 Areas for Special Consideration in Parametric Cost Estimating **

9-1005.1 Parametric Estimating for Change Orders **

Change order pricing using parametric cost estimating relationships may need to be considered in a different light than initial contract pricing actions. The contractor may use cost estimating relationships which are unique to change order proposals. In general, contractors do not segregate costs separately for individual change orders. Therefore, it is important that the contractor have a system in place to validate, verify, and monitor CERs unique to change orders. However, if the CER was applicable to the basic contract and change orders, the CER could be validated without cost segregation.

9-1005.2 Forward Pricing Rate Agreements **

a. Contractors may submit proposals for forward pricing rate agreements (FPRAs) or formula pricing agreements (FPAs) for parametric cost estimating relationships to reduce proposal documentation efforts and enhance Government understanding and acceptance of the contractor's system. Government and contractor time can be saved by including the contractor's most commonly used CERs in FPRAs or FPAs. (See FAR 15.407-3 and 42.17 for basic criteria.) However, such an agreement is not a substitute for contractor compliance at the time of submitting a specific price proposal. FAR requires that the contractor describe any FPRAs in each specific pricing proposal to which the rates apply and identify the latest cost or pricing data already submitted in accordance with the agreement. All data submitted in connection with the agreement is certified as being accurate, complete, and current at the time of agreement on price on each pricing action the rates are used on, not at the time of negotiation of the FPA or FPRA (FAR 15.407-3(c)).

b. Key considerations in auditing FPRA/FPA proposals for parametric CERs follow:

(1) FPRAs/FPAs do not appear practicable for CERs that are intended for use on only one or few proposals.

(2) Comparability of the work being estimated to the parametric data base is critical. FPRA proposals for CERs must include documentation clearly describing circumstances when the rates should be used and the data used to estimate the rates must be clearly related to the circumstances.

(3) Validation of all the parametric criteria (see 9-1003 & 9-1004) is especially important if a single CER or family of CERs is to be used repetitively on a large number of proposals.

9-1005.3 Subcontract Pricing Considerations **

a. FAR 15.404-3(c) requires that when a contractor is required to submit certified cost or pricing data, the contractor will also submit to the Government accurate, complete, and current certified cost or pricing data from prospective subcontractors in support of each subcontract cost estimate that is:

(1) $13,500,000 or more,

(2) both more than the certified cost or pricing data threshold and more than 10 percent of the prime contractor's proposed price, or

(3) considered to be necessary for adequately pricing the prime contract.

Use of parametric CERs does not relieve a contractor of its responsibility to disclose planned subcontract procurements and the related subcontractor certified cost or pricing data.

b. When proposed material costs are based on parametric estimates, the contractor must demonstrate that the type of materials required for the proposal are the same as included in the CER data base. The auditor should perform audit procedures to determine if:

(1) materials included in the CER data base are not estimated separately in the proposal, and

(2) adjustments have been made to the CER data base for those items which were previously manufactured in-house and now are being purchased. If the CER data base has not been adjusted the contractor should provide a detailed cost estimate for purchased materials.

c. The contractor should explain any major differences between parametric estimates of subcontract costs and the subcontractor's quoted price and to provide the rationale for using the parametric estimate instead of the quote.

d. Consistency in subcontract cost estimating must be maintained within the contractor's estimating system. Any significant deviations from normal practices in the proposal must be identified and justified by the contractor.

9-1005.4 Parametric Estimating Efficiency **

a. A primary justification for using parametrics is reduced estimating and negotiation costs. Contractors should perform a cost-benefit analysis before implementing an elaborate parametric estimating model. Their analysis should show that implementation and monitoring costs do not outweigh the benefit of reduced estimating costs. In many instances, new reporting systems may have to be developed to provide reliable noncost independent variables. In addition, the costs of CER validation and monitoring may be substantial.

b. When the contractor's cost-benefit analysis indicates that the parametric system implementation costs might outweigh the benefits of reduced estimating costs and/or increased estimating accuracy, the matter should be pursued for potential cost avoidance recommendations as discussed in 9-308.

9-1005.5 Data Base Adjustment Considerations **

a. One basic criterion (see 9-1004.4) is that the parametric data base be comparable to work being estimated. However, a contractor may have to adapt a partially comparable data base to its cost history using a "calibration" factor. An example would be an adjustment to the data base to estimate the savings as a result of continuous improvement initiatives such as TQM. The utilization of complexity factors and/or adjustments to modify contractor developed in-house CERs is a valid technique. However, the use of such factors or adjustments should be fully documented and disclosed. In addition, this approach increases the contractor's burden to document compliance with the other criteria.

b. If a contractor does not support the adjustment factors, the contracting officer should be promptly notified (see 9-1005.7). In addition, the auditor should determine if a qualified or adverse opinion is required. The audit report should disclose the costs associated with the unsupported factors.

9-1005.6 Contract Administration Interface **

a. Upon receipt of a request to audit a price proposal, the auditor will coordinate with the Plant Representative/ACO to make arrangements for any needed technical reviews of the proposal (see 4-104 and B-100). Because of the special nature of cost-to-noncost estimating relationships, and the possibility of limited cost history and added audit testing, complete coordination is especially important when parametric estimates are involved.

b. While the auditor will address special areas of concern as requested by the PCO and/or the Plant Representative/ACO, the audit scope will be established by the auditor in accordance with the auditing standards (see 9-103.3), unless the PCO requests that the auditor evaluate only part of a price proposal (see 9-206 and 9-209).

c. Auditors should be available, on request, to explain applicable price proposal criteria and identify any prospective audit concerns to both Government and contractor personnel. An example of such audit advice would be to identify operating reports or records that have not been previously used to forecast costs and would therefore require added contractor support and audit testing. Such advance coordination will help avoid unnecessary contractor system development costs.

9-1005.7 Reporting of Estimating Deficiencies **

All proposal and estimating deficiencies found during the audit of parametric estimating techniques should be immediately reported to the Plant Representative/ACO. These may include incorrect, incomplete, or noncurrent data and use of inappropriate estimating techniques. When a proposal evaluation discloses estimating system deficiencies, a separate report entitled "Estimating System Deficiency Disclosed during Evaluation of Proposal No. XXX" will be issued immediately after the deficiency is found (see 9-310).

9-1006 Estimating Standards **

9-1006.1 Distinction Between Estimating Standards and Parametric Cost Estimating **

a. In terms of historical evolution and sophistication, the terminology of estimating standards as covered in this paragraph might be viewed as falling between traditional cost-to-cost estimating rates and factors and the more advanced types of parametric estimating systems (see 9-1002). However, a contractor may elect to use any combination of these evaluating methods, perhaps in the same proposal.

b. Estimating standards are normally developed through the use of motion-time-measurement studies performed by industrial engineers. Parametrics, on the other hand, are developed by relating historical costs to one or more noncost drivers. While estimating standards usually represent cost-to-noncost relationships, they have traditionally been limited to narrower or more discrete elements of estimated cost than may be the case in more complex parametric CERs. Also, the logic of the estimating relationship and the appropriateness of the mathematics in estimating standards will usually be readily apparent.

c. Estimating standards will not necessarily require valuation under the criteria for parametric cost estimating relationships contained in 9-1003. Especially when such standards (e.g., hours/pound, hours/drawing, hours/page) have been in place and accepted by Government personnel, the evaluation guidance in this paragraph will likely be sufficient.

9-1006.2 Use of Estimating Standards **

a. Estimating standards may be established by relating engineering and/or production costs (effort, time, and/or materials) to specific characteristics of a product such as composition, weight, size, or duration. This approach is designed to save estimating effort and has been used frequently in estimating construction costs and costs of recurring job orders such as printing. Many contractors use the technique in shop-order budgeting and production control.

b. Estimating standards may be used to estimate the cost of a single material item required for the work, or the cost of a single labor operation; for example, welding electrodes per ton of structural steel, press operations time per page, or guard-service costs per week. More complex, composite standards may be used to estimate costs of groups of components or broader classes of labor operations.

c. Use of estimating standards may be appropriate in contract cost estimating situations when there is a close correlation between an amount of production cost and the related product or process characteristic. The data sets being correlated must have been measured in a uniform manner. The cost data used should be verifiable by reasonable means. The units of measure used for base characteristics should be uniform and readily identifiable; the quantity or value of a characteristic should be readily determinable. Standards may be derived from industry-wide statistics but should be relevant and verifiable to the experience of the particular contractor using them.

9-1006.3 Applicability to Price Proposals **

Traditionally, estimating standards have been used to estimate costs in lump sums, often including supervision, indirect costs, and occasionally general and administrative expense. To comply with FAR 15.408, Table 15-2 and cost accounting standards, the contractor will normally have to factor the estimate to identify the costs by cost element or function. Alternatively, a proposed cost based on an estimating standard might qualify for submission as an "other" cost element if the cost can be tracked as such and is a relatively minor part of the total proposal.

9-1006.4 Audit Procedures **

a. Depending on materiality and risk of the costs estimated, the auditor should examine the development and application of estimating standards to determine whether their use is proper in the circumstances. Evaluate all cost and noncost data applicable to each significant estimating standard and determine whether the data has been properly used in the computations. Assure that the measurements and correlation are adequate for the purpose. Determine whether the basis for the standard (for example, the product mix, production rates, and production methods) is sufficiently similar or comparable to that contemplated in the estimate at hand.

b. When changes are contemplated in the design or production of an end item or the rate or method of production, the contractor's adjustments of the estimating standards require special scrutiny. Review by Government technical specialists may be necessary in this situation.

c. During audits of historical costs, sufficient information may be readily available from which the auditor could develop estimating standards to use as one means of appraising recurring contractor estimates. However, this will not substitute for audit of cost estimates as submitted by the contractor.

9-1100 Section 11 – Limitation on Pass Through Charges **

9-1101 General **

FAR 15.408(n) requires the Contracting Officer to include FAR 52.215-22 (Limitation on Pass-Through Charges - Identification of Subcontract Effort) and FAR 52.215-23 (Limitations on Pass-Through Charges) in solicitations and contracts as follows:

- For DoD when the total estimated contract or order value exceeds the threshold for obtaining certified cost or pricing data and the expected contract type is any contract type except:
  - Fixed-price with economic price adjustment, Firm-fixed-price or fixed-price incentive contract awarded on the basis of adequate price competition
  - Fixed-price with economic price adjustment, Firm-fixed-price or fixed-price incentive contract for the acquisition of a commercial products or commercial services
- For civilian agencies when the estimated contract or order value exceeds the simplified acquisition threshold and the contemplated contract type is expected to be cost-reimbursement type

FAR 52.215-22 (Limitation on Pass-Through Charges—Identification of Subcontract Effort) requires contractors to identify in its proposals the total cost of work to be performed by the offeror, and by each subcontractor. When more than 70 percent of the total cost of the work to be performed is subcontracted, this clause requires the contractor to (1) identify its indirect costs and profit/fee applicable to the work to be performed by the subcontractor, and (2) provide a description of the “added value” it will provide related to the work performed by the subcontractor(s).

FAR 52.215-23 (Limitation on Pass-Through Charges) defines “added value” to be subcontract management functions (either direct or indirect) that are a benefit to the Government (e.g. processing orders of part or services, maintaining inventory, reducing delivery lead times, managing multiple sources for contract requirements, coordinating deliveries, performing quality assurance functions, etc). An “excessive pass-through charge” includes only indirect costs and profit applicable to the subcontracted work. The clause also stipulates that the Government will not pay indirect costs or profit/fee to a higher tier contractor on work performed by a lower-tier subcontractor unless the higher tier contractor provides sufficient evidence that it “adds value”.

These FAR provisions create an allowability issue on excessive pass-through costs, not an allocability issue. The excessive pass-through costs are still allocable to a contract, but will not be paid by the Government (i.e., unallowable) if the contracting officer determines the contractor does not provide "added value" to the subcontracted portion of the work. FAR 31.203(i) specifically makes the indirect costs that meet the definition of "excessive pass-through charges" in FAR 52.215-23, unallowable. The intent of the clauses is to minimize excessive pass-through charges by contractors (or lower-tier subcontractors) that add "no" or "negligible" value to the subcontracted work.

9-1102 Evaluation of Regulatory Requirements **

When proposed subcontract costs exceed 70 percent of the total cost of work to be performed, auditors should ensure the proposal includes a description of the contractor's "added value" as required by FAR 52.215-22. The auditor should request the contractor specifically address "added value" during the proposal walk through. The auditor should evaluate the reasonableness of the contractor's description and supporting documentation of the "added value" to assess whether the contractor complies with the requirements set forth in FAR 52.215-23. If "no" or "negligible" value is added by the prime contractor, then the indirect costs added by the prime contractor related to the subcontracted work should be questioned as excessive pass-through charges based on FAR 31.203(i). If the "added value" description is not included in the proposal, the auditor should consider this a proposal inadequacy and should discuss it immediately with both the contractor and contracting officer.

9-1200 Section 12 - Forward Pricing Rate Agreements (FPRA) **

9-1201 Introduction **

a. It is DCAA policy that forward pricing rate agreements (FPRAs) between the Government and contractors receive consistent audit treatment. In consonance with this policy, this section presents audit guidance covering the establishment and monitoring of FPRAs at contractor locations.

b. The guidance presented herein is intended to supplement the detailed guidance presented in other parts of CAM, such as 9-700, on the audit of estimated rates.

9-1202 Definitions and Background **

9-1202.1 FPRA **

An FPRA, as discussed in FAR 42.17, is a written agreement negotiated between a contractor and the Government regarding certain rates and factors available during a specified period for pricing contracts or contract modifications. Such rates and factors represent reasonable projections of specific costs that are not easily estimated for, identified with, or generated by, a specific contract, contract end item, or task. These projections may include rates for such things as: labor, indirect costs, material obsolescence and usage, spare parts provisioning, and material handling.

9-1202.2 Forward Pricing Rate Recommendation (FPRR) **

An FPRA, by definition, is a written agreement between the Government and its contractor. A contractor, however, may not always be willing to enter into an FPRA because of frequently changing business conditions or other circumstances. If, under these circumstances, the Government still wishes to use some form of preestablished pricing rates, forward pricing rate recommendations can be unilaterally established by the ACO. Although the establishment of an FPRR differs in some key respects from an FPRA, most of the audit guidance contained within this section applies equally to both types of rates.

9-1202.3 Forward Pricing Factor **

A forward pricing factor is generally represented as a percentage or ratio that is applied to an existing cost or estimate in order to arrive at another, usually related, cost determination or estimate. Scrap, for example, is typically estimated as a percentage of unit material costs and then added to the unit material costs to develop total unit material costs. Other typical forward pricing factors include escalation, labor fringes, and special tooling.

9-1202.4 Formula Pricing Agreement **

a. A formula pricing agreement (FPA) is a written agreement between a DoD contracting office and a large volume contractor which sets forth a methodology that the contractor agrees to follow when pricing items covered by the FPA. It differs from an FPRA in that, once established, the FPA may be used to determine the complete final price of individual orders. A typical FPA, for example, may be established to cover and expedite the acquisition of spares.

b. DCAA FAOs, as part of DoD's field pricing support team, are requested to audit both contractor FPA and FPRA submissions. All FPA and FPRA submissions must be prepared and supported with certified cost or pricing data that is current, accurate, and complete. Contractor certification to this effect is required at the time agreement is reached on the formula price and/or at the time of agreement on individual orders over $750,000 (see 9-1207). This difference aside, much of the audit guidance contained herein for FPRAs is also generally applicable to the audit of an FPA.

9-1203 FPRA Initiation, Application, Use, and Expiration **

a. The establishment of an FPRA may be initiated by either the contractor, PCO, or ACO whenever it is determined that the benefits to be derived from such an agreement are commensurate with the effort of establishing and monitoring it.

b. The Government normally enters into an FPRA with contractors having a significant volume of pricing actions with the Government. This avoids having to establish new rate estimates every time the contractor bids on new work. In determining whether to establish an FPRA, it is the ACO's responsibility to consider whether sufficient benefit can be derived from such an agreement.

c. Contracting officers will use FPRA rates as bases for pricing all contracts, modifications, and other contractual actions to be performed during the period covered by the agreement, unless the ACO determines that changed conditions have invalidated part or all of the agreement. Any conditions affecting the agreement's validity will be promptly brought to the ACO's attention.

d. FAR 42.1701(c) requires an FPRA to include specific terms and conditions covering expiration, application, and data requirements for systematic monitoring to assure the validity of rates. The agreement must also provide for cancellation at the option of either party and require the contractor to submit to the ACO and to the cognizant contract auditor any significant change in cost or pricing data.

9-1204 Rate Identification and Support **

Offerors are required in each price proposal to specifically describe the FPRA, if any, to which the rates apply and to identify the latest certified cost or pricing data already submitted in accordance with the agreement. (See FAR 15.407-3(a) and the instructions in FAR 15.408, Table 15-2 I.G. for submitting a contract price proposal.) All data submitted in connection with the agreement, updated as necessary, form a part of the total data that the offeror certifies to be accurate, complete, and current at the time of agreement on price for an initial contract or for a contract modification (see Certification, 9-1207).

9-1205 Audit Scope **

a. The scope of an FPRA audit needs to be tailored to the individual contracting circumstances. At a minimum, however, the auditor should:

(1) Appropriately consider:

(a) the materiality of bases, pools, and rates,

(b) the results of prior DCAA audits and adequacy of contractor internal controls,

(c) the historical differences between the contractor's forecasted and actual rates,

(d) changes in the contractor's organization, operations, manufacturing processes and practices, business volume, and allocation bases,

(e) the mix of Government and commercial business and types of Government contracts, and

(f) Board of Directors minutes for documentation of any major decisions affecting the contractor's organization and operations.

(2) Determine that the contractor's:

(a) estimating practices comply with disclosed cost accounting practices,

(b) projected business volume, allocation bases, and indirect costs are reasonable and in consonance with the contractor's internal plans,

(c) rate data are valid and correct, and

(d) rate computations are mathematically correct.

b. The rates covered by an FPRA, although "preestablished" for periods of general use on more than one proposal, are audited in much the same manner as the forward pricing rates applied in the audit of individual price proposals. Many of the steps for auditing forward pricing rate estimates are also similar to the steps for auditing historical costs and rates. Therefore, prior to determining the FPRA audit scope, the auditor should become familiar with the CAM guidance covering the audit of both forward pricing rates (see 9-700 for indirect costs and 9-500 for direct labor) and historical cost rates (see 6-600 for indirect costs and 6-400 for direct labor).

9-1206 Evaluation **

a. Budget Evaluation Compatibility. Rate forecasting procedures are closely tied to the contractor's budgeting procedures. Therefore, auditors should evaluate the budgeting procedures and related practices to:

(1) ascertain that, in the aggregate, the data upon which the judgments are made are sound and consider all available and relevant contractor data, and

(2) determine whether the data supporting the proposed rates are compatible with company budgets and agree with the general conditions, standards, staffing factors, and other criteria used for planning and budgetary purposes.

b. Estimating System Audits and Deficiencies. In evaluating an FPRA submission, the auditor should be familiar with:

(1) DCAA's guidance on estimating methods and system audits in 9-309 and 5-500,

(2) the details of the contractor's estimating system, and

(3) the disclosures from the latest estimating system compliance audit.

At a minimum, the auditor should perform a thorough review of the permanent file for outstanding estimating system deficiencies. Contractor estimating deficiencies disclosed as a result of system audits or audits of individual pricing actions can also apply to the contractor's FPRA estimates. Similarly, estimating deficiencies disclosed during an FPRA evaluation can also apply to the audit of individual pricing actions. If an outstanding deficiency exists that has an impact on the FPRA evaluation or one is disclosed by the evaluation, then the auditor should adopt one of the reporting alternatives presented in 5-110 and incorporate the deficiency accordingly into the FPRA evaluation report.

c. Comparison to Billing Rates. Because of the large degree of interdependence between billing rates and forward pricing rates for the current contractor fiscal year (CCFY), the auditor should expect both types of rates for the CCFY to be the same. It is therefore important for the auditor evaluating an FPRA submission with CCFY rates to carefully compare these rates and supporting data with the most recent billing rates and supporting data for the CCFY. Any significant differences between the rates must be fully explained and supported by the contractor. If the auditor determines that billing rates should be revised, the contractor should be requested to submit a new billing rate proposal. If the contractor refuses to submit a more current billing rate proposal the procedures in 6-705 are applicable (also see 9-1207, 6-706.1, and FAR 42.703-2 for further guidance).

d. Impact of Individual Pricing Actions

(1) Each pricing action needs to be initially evaluated to determine whether its impact upon the existing FPRA significantly changes the conditions upon which the FPRA was negotiated. FAR 15-407-3(b) requires that such changes be reported to the ACO. In assessing the changed conditions, the auditor should consider:

(a) the type of contract contemplated,

(b) the dollar significance of the pricing action,

(c) whether the performance period of the proposed contract action is significantly different from the period to which the rate agreement applies, and

(d) any new data or other information that may raise a question as to the acceptability of the rates.

(2) The auditor should also be alert to any pricing action which does not accurately reflect the agreed-upon rates, incorporates the correct rates from an FPRA which has subsequently been declared invalid, or appears to seek preferential pricing rates (see FAR 15.407-3(b)/DFARS 215.407-3.

e. Allocation Methods and Activity Bases

(1) General. Even though a contractor has well-established and regularly accepted procedures for formulating and applying FPRAs, the auditor needs to periodically perform an in-depth analysis to determine whether these procedures and the proposed allocation methods and activity bases are still equitable. Guidance for making this determination is provided in 6-600, Chapter 8, and 9-700.

(2) CAS. The Cost Accounting Standards (Chapter 8) play a significant role in the development of rates and factors. Therefore, when evaluating an FPRA submission, the auditor should review the permanent file for any outstanding CAS problems relating to the rates, and otherwise assess the current proposal for compliance with CAS.

(3) Rate Structure. Rate structure describes the number and types of rates established for a given set of conditions. It also determines how costs are to be allocated and the overall equity of the allocation. Contractors are required to use the same rate structure for forward pricing purposes as they do for historical costing purposes. Should a contractor employ a different structure for estimating its costs, the auditor needs to determine whether the contractor is changing its accounting system. If so, has the contractor submitted:

(a) a cost impact statement, and

(b) a revised disclosure statement as required by FAR 52.230-6 and 3 of the CAS administration clause (see 9-704.3 and 8-303.3).

(4) Rate Period. The auditor needs to determine that the rates used for forward pricing purposes are appropriate for the contemplated period of contract performance (see 9-704.2).

(a) Indirect Cost Rate Periods. The rate period for indirect cost rate estimates should generally coincide with the contractor's fiscal year period or the historical rate period established for the allocation of the indirect cost. Except for those situations explained in 8-406.1, an indirect cost rate period should not be computed for a period longer than one year. In certain circumstances, however, it may be more equitable for contract costing purposes to use a shorter indirect cost rate period than the contractor's normal fiscal year. These circumstances are explained in 6-605.

(b) Labor Rate and Factor Periods. The period for determining forward pricing factors and labor rates will also usually coincide with the contractor's fiscal year or historical rate period. The applicability of the period, however, must be examined for each pricing action. This is to determine whether the contemplated contractual requirements parallel the conditions that were contemplated in the development of the rates and factors, or whether conditions are present which indicate that the rate periods should be modified. The audit report should contain appropriate comments whenever the evaluation of forward pricing rates and factors discloses that the estimated rate periods are unreasonable for the work to be performed. See 9-500 and 9-600 for further guidance, including the conditions under which forward pricing factors and labor rates should be modified.

(5) Forecasted Bases and Expenses. Auditors must use the knowledge and data that they obtain from audits of contractors' estimating systems as the basis for determining the validity of the contractor's estimates of base and expense pool amounts. In addition, the auditor should evaluate the information available from cognizant Government acquisition and contract administration officials, as well as from outside sources. At a minimum, the auditor needs to verify that the forecasted allocation bases and estimated pool costs:

(a) are compatible with the contractor's current business volume estimates and developed in accordance with the latest management plans, and

(b) appropriately consider the procurement requirements and limitations of the individual buying offices.

(See 6-700 and 9-700 for further guidance on the evaluation of forecasted bases and expenses.)

f. Assist Audits. Corporate and other organizational allocations can have a substantial impact on forward pricing rates. Therefore, assist audit planning should be coordinated with the involved DCAA audit offices to ensure timely receipt of feeder reports. The planning should be geared to the contractor's budget cycle. Requests for assist audits of allocated costs or rates should not wait until the receipt of a contractor's FPRA proposal. (Also see 9-104.5(b).)

g. Use of a Specialist. The auditor should refer to the detailed procedures in Appendix B and throughout Chapter 9 for guidance:

(1) in making decisions about whether technical specialist assistance is needed,

(2) identifying what type of technical specialist is needed,

(3) deciding upon the best source for the technical assistance,

(4) achieving good communications with the technical specialist, and

(5) reporting on the uses of technical specialists or the impact of their nonavailability.

9-1207 Certification **

Contractors seeking to enter into a FPRA are required by FAR 42.1701(b) to provide the ACO with a proposal that includes certified cost or pricing data that are accurate, complete, and current as of the date of submission. No Certificate of Current Cost or Pricing Data is required, however, upon reaching a negotiated settlement on the FPRA (or other advance agreement). This is because the rates in the FPRA are covered by the certificates that are executed when the individual contracts and contract modifications are negotiated. That is, when an FPRA or other advance agreement is used in partial support of a later contractual action that requires a certificate, the price proposal certificate shall cover:

(1) the data originally supplied to support the FPRA or other advance agreement and

(2) all data required to update the price proposal to the time of agreement on contract price (see FAR 15.407-3 and FAR 15.408, Table 15-2).

9-1208 Monitoring FPRAs **

Primary responsibility for updating rates rests with the contractor, and ACO staff members often assume most of the Government's responsibility for monitoring FPRAs. Notwithstanding this, the rates should also be monitored periodically by the auditor so that the ACO can be notified of any significant variances. When appropriate, the auditor should:

a. Ensure that the rates are analyzed on a periodic basis by comparing the actual rates with the agreed-to rates. To avoid performing duplicate work, coordinate with the contractor and ACO and determine if they are tracking and analyzing rates. If the contractor is not tracking and analyzing rates, the auditor should recommend to the ACO that the contractor perform this effort as a condition of the FPRA.

b. Compare new outputs from the contractor's budgetary system against the contractor's actual expenditure patterns for the CFY and against the budgeted amounts initially provided to support the FPRA.

c. Inform the ACO of any significant variances disclosed from monitoring the FPRA rates. When unfavorable trends or patterns begin to surface, and significant variances from actual costs are identified communicate the results of the analysis to the ACO in a memorandum along with the recommendation that the contractor be requested to submit a revised FPRA proposal. If, on the basis of the facts at hand, the ACO does not agree that revised rates are warranted, inform the FAO Manager for possible elevation of the issue(s). Also see 9-1209 on reporting.

9-1209 Reporting on an FPRA **

a. Report writing guidance in 10-200 and the audit report shell report for activity code 23000, working paper A, and working paper A-01, found on the DCAA intranet should be used for reporting the findings of FPRA evaluations.

b. While the establishment of an FPRA can be initiated by the contractor, PCO, or ACO, the ACO is responsible for:

(1) obtaining all new or updated submissions from the contractor (FAR 42.1701) and for

(2) processing the requests for DCAA audit when field pricing support is available (FAR 15.404-2).

c. Recommend a contract reopener or savings clause in forward pricing audit reports when external restructuring costs are included in forward pricing rates (Selected Areas of Cost guidebook, Chapter 63).

d. The auditor is obligated to promptly report to the ACO any conditions which may affect the validity of an existing FPRA. Although oral notification and discussion of the conditions may be initially appropriate in some circumstances, such notification should be followed up by a letter or report when the notification is expected to be pursued. If, the ACO determines that the condition has invalidated the agreement, the ACO should provide notification of this fact to all interested parties and initiate revision of the agreement (see FAR 42.1701(c and d)).

e. Should the FPRA audit disclose a contractor estimating system deficiency which has not been previously reported, the auditor should report the deficiency and should ensure that the deficiency is appropriately incorporated into the FPRA evaluation report.

9-1210 Auditor Involvement at FPRA Negotiation Conferences **

FAR 42.1701(b) requires the ACO to invite the cognizant contract auditor to participate in developing a Government objective and to participate in the negotiations of the FPRA. Upon completing the negotiations, the ACO should prepare a price negotiation memorandum (PNM) and forward copies of the PNM and FPRA to the cognizant auditor, as well as to all contracting offices that are known to be affected by the FPRA. See 15-400 for further guidance on auditor support at negotiations.

9-1211 Requirement for Postaward Audit After Revision to an FPRA **

Forward pricing rates reflect the contractor's best judgments of what future expenses will be. The certified cost or pricing data supporting these judgments must be accurate, complete, and current as certified by the contractor when individual contracts are negotiated (see Certification above). To support their certifications, contractors must ensure continual surveillance of the certified cost or pricing data supporting the FPRA rates. Whenever the auditor has an indication that forecasted rates should have been revised for significant changes to reflect more accurate, complete, or current certified cost or pricing data, pricing actions using the rates should be subject to a postaward audit. (See 14-100 for detailed guidance.)

9-1300 Section 13 - Should-Cost Team Reviews **

9-1301 Introduction **

A should-cost team review, as discussed in FAR 15.407-4/DFARS PGI 215.407-4, is a method of contract pricing that employs an integrated team of Government procurement, contract administration, contract audit, and engineering representatives to conduct a coordinated, in-depth cost analysis at the contractor's plant.

9-1302 Nature and Purpose of Team Reviews **

a. A should cost review is performed to:

(1) identify uneconomical or inefficient practices in the contractor's management and operations and to quantify the findings in terms of their impact on cost, and

(2) develop a realistic price objective which reflects reasonably achievable economies and efficiencies.

b. A should-cost team review represents a rigorous and detailed onsite proposal evaluation. It is a specialized approach to the establishment of a fair and reasonable price based on what a contract (normally a major production contract) should cost in the environment and under the conditions predicted for contract performance.

9-1303 Types of Should-Cost Reviews **

a. The two types of should-cost reviews are:

(1) program should-cost, and

(2) overhead should-cost. These should-cost reviews may be performed together or independently.

b. A program should-cost review is used to evaluate significant direct costs, such as material, labor and associated indirect cost. An overhead should-cost review is used to evaluate indirect costs. It is normally used to evaluate a Forward Pricing Rate Agreement (FPRA) with a contractor.

9-1304 Criteria for Performing Should-Cost Reviews **

a. The decision on whether to perform a program should-cost analysis is made by the contracting officer. Considerations in deciding to conduct a program should-cost review are in FAR 15.407-4(b)(2). Further, DFARS PGI 215.407-4 (b) states that should-cost analyses shall be performed prior to the award of definitive major systems contracts in excess of $100 million when all of several conditions identified therein are met. Waiver of the should-cost requirement is made at a high level in accordance with Military Service procedures.

b. The decision to conduct an overhead should-cost review is made by either DCMA or the military department responsible for performing contract administration functions. These reviews should be conducted when the criteria in FAR 15.407-4(c)(2) and DFARS PGI 215.407-4(c) are met. The head of the contracting activity may request an overhead should-cost review for a business unit which does not meet the criteria.

9-1305 Team Makeup and Responsibilities **

a. The should-cost review team (see Figure 9-13-1) normally consists of a team leader, a deputy team leader, a DCAA representative, an operations and administration officer, and three subteams: technical, management, and pricing. The Military Department establishing the team review will usually assign its own personnel as chiefs of the management, technical, and pricing subteams. Each subteam is comprised of contract administration and/or procurement office personnel responsible for the performance of specific functions.

b. After considering the results of DCAA operations audits, the technical subteam is responsible for the review and evaluation of a contractor's engineering, production, inspection, testing, and quality assurance systems. The technical subteam can also be expected to evaluate the technical aspects of proposed direct labor hours and material requirements. The management subteam evaluates the contractor's overall management approach and organizational structure and their impact on the estimated costs and proposed price. The pricing subteam obtains Government field pricing support on subcontractor and intracompany price proposals and/or cost estimates (see 9-104 and 9-105) and develops the Government's negotiation position.

c. As illustrated in Figure 9-13-1, the DCAA representative participates in the should-cost team review in an independent advisory capacity reporting directly to the team leader. Technical direction during the review will be provided by the auditor's supervisor.

9-1306 Processing Requests for Team Participation **

a. DCAA will be responsive to requests received from Military Department procurement offices for contract audit participation in should-cost team reviews. Requests may either be processed through DCAA Headquarters or received directly by FAOs. Requests on reviews established by the Army are covered by a memorandum of understanding which is consistent with the guidance contained in this section.

b. When notified of a pending should-cost team review, the FAO manager, in conjunction with the regional audit manager, will assign a DCAA representative to the team. Selection criteria will include technical expertise, ability to establish and coordinate responsibilities of assigned personnel, and communication skills.

9-1307 Reserved **

9-1308 Role of the Assigned Contract Auditor **

The role of the assigned DCAA auditor in a should-cost team review is essentially the same as in a regular audit of a price proposal, as covered in other sections of this chapter. Specific DCAA responsibilities and functions as part of these team reviews are highlighted below.

9-1308.1 DCAA Audit of Contractor's Proposal **

The contract auditor will perform a comprehensive audit of the contractor's proposal in accordance with other sections of this chapter. The auditor has primary responsibility to evaluate and report on all financial/cost aspects of a contractor's proposal and to determine the scope of audit. This responsibility includes but is not limited to an evaluation of the following:

a. Direct labor hours. (This aspect of the review includes application of improvement curves and may be accomplished in conjunction with efforts of the technical subteam.)

b. Direct labor rates.

c. Indirect cost rates.

d. Direct material pricing.

e. Labor and material usage factors (for example, labor standards realization and scrap).

f. Make-or-buy decisions.

g. Major subcontract costs (to include an evaluation of whether the prime contractor is properly discharging its responsibility for the review of subcontractor proposals).

h. Estimating methods and procedures.

i. Adequacy of the cost accounting system for the proposed contract.

9-1308.2 DCAA Coordination with Subteams **

The contract auditor and members of the subteams may in some cases have related and overlapping responsibilities in some review areas. To avoid duplication, efforts of the auditor and the subteams should be carefully coordinated.

9-1308.3 Communication of Contract Audit Results **

a. The contract auditor will promptly advise the should-cost review team leader of significant findings during the audit, and discuss interim findings fully with other team members as requested by the team leader or as needed to further coordinate the overall team effort.

b. Report on any operations audit performed during the should-cost review.

c. Overall results of the contract audit work on the should-cost team review will be provided to the team leader through a formal audit report prepared in accordance with agency guidance. The team leader and auditor should agree on an audit report due date at the start of the review. The due date must provide enough time for a complete audit of the proposal and auditor quantification of findings developed by the subteams.

9-1308.4 DCAA Assistance After Report Issuance **

a. The contract auditor will provide contract audit assistance to the should-cost review team leader as needed after issuance of the audit report. An example of this type of effort is the audit of contractor proposal revisions, consistent with FAR 15.404-2(c), Audit Assistance for Prime Contracts and Subcontracts. The DCAA representative will not, however, develop recommended Government "fallback" positions since inclusion of this type of recommendation in our audit reports or audit advice may compromise the Agency's independence and contravene the advisory nature of audit services. While necessary post-audit assistance may be extensive, it is not anticipated to be continuous in most cases.

b. The auditor will attend negotiation and other conferences if requested by the team leader or other procurement official. Since the responsibilities and functions of the auditor assigned in a should-cost team review are essentially the same as in a regular audit of a price proposal, the auditor's attendance at negotiation conferences will be governed by 15-400. Normally, the auditor should attend only those portions of the negotiation conference impacted directly by the audit.

9-1308.5 Establishing Appropriate Responsibilities and Functions **

a. The DCAA representative should ensure that DCAA audit efforts and other functions on the team are consistent with the responsibilities of the contract auditor as stated in the DCAA charter (1-1S1, Introduction to Contract Audit). Early coordination of team responsibilities should provide an operating guide and checklist for the procurement office, team leader, and individual team members to use in defining and performing assigned functions. After the initial planning meetings with the other should-cost team members, the FAO should provide written confirmation to the team leader of the responsibilities of DCAA during the should-cost review. In addition, the FAO should maintain close and effective coordination with the team leader during the review to ensure DCAA responsibilities and the timing for accomplishing these responsibilities are properly communicated to those involved.

b. During planning meetings, ensure that the team leader has a clear understanding of DCAA's role. It should be made clear that DCAA will not abrogate its responsibilities for proposal audit or perform extensive clerical or other nonaudit tasks for the team.

c. If inappropriately proposed functional assignments cannot be promptly resolved with the team leader, or if another Government agency intends to perform DCAA responsibilities, the FAO should immediately notify the regional office and Headquarters, ATTN: PSP.

d. At the conclusion of providing the requested audit services, the FAO is expected to issue an audit report following the general guidance contained in 10-200.

9-1309 Use of DCAA Operations Audits by the Should-Cost Review Team **

a. The assigned DCAA auditor will furnish the should-cost review team leader a listing of the FAO's recently completed operations audits and any related information requested. The team leader can use this information in determining the scope of the should-cost review and assigning specific responsibilities to the subteams.

b. Recommendations contained in DCAA operations audit reports which are not yet implemented by the contractor should be quantified by the auditor and included in the audit report to reflect the impact on the proposal being audited. In this manner, the results of DCAA's audits of the contractor's operations will help the should-cost review team to estimate what the proposed contract should cost the Government under efficient and economical conditions.

c. If the team leader decides that supplemental economy/efficiency audits are required as part of the should-cost review in areas of DCAA interest, DCAA will be given the first opportunity to perform operations audits in those areas. The FAO should perform all such audits unless the FAO and regional office are unable to secure necessary technical assistance, or cannot assign sufficient staffing to complete the audits in time to meet the should-cost review schedule.

Figure 9-13-1 - Should Cost Review Team Organization Chart [**]