DOE - EM - SRP - 2010
2nd Edition

Environmental Management

Safety ▪ Performance ▪ Cleanup ▪ Closure

Standard Review Plan (SRP)

Earned Value Management System Review Module

Corporate Critical Decision (CD) Review and Approval Framework Associated with Nuclear Facility Capital and Major Construction Projects

March 2010

Office of Environmental Management
U.S. Department of Energy
Washington D. C. 20585

OFFICE OF ENVIRONMENTAL MANAGEMENT

Standard Review Plan (SRP)

Earned Value Management System (EVMS)

Review Module

Critical Decision (CD) Applicability					
CD-0	**CD-1**	**CD-2**	**CD-3**	**CD-4**	**Post Operation**
		✓	✓	✓	

March 2010

FOREWORD

The Standard Review Plan (SRP)[1] provides a consistent, predictable corporate review framework to ensure that issues and risks that could challenge the success of Office of Environmental Management (EM) projects are identified early and addressed proactively. The internal EM project review process encompasses key milestones established by DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Assets*, DOE-STD-1189-2008, *Integration of Safety into the Design Process*, and EM's internal business management practices.

The SRP follows the Critical Decision (CD) process and consists of a series of Review Modules that address key functional areas of project management, engineering and design, safety, environment, security, and quality assurance, grouped by each specific CD phase.

This Review Module provides the starting point for a set of corporate Performance Expectations and Criteria. Review teams are expected to build on these and develop additional project-specific Lines of Inquiry, as needed. The criteria and the review process are intended to be used on an ongoing basis during the appropriate CD phase to ensure that issues are identified and resolved.

[1] *The entire EM SRP and individual Review Modules can be accessed on EM website at http://www.em.doe.gov/Pages/Safety.aspx , or on EM's internet Portal at https://edoe.doe.gov/portal/server.pt Please see under /Programmatic Folder/Project Management Subfolder.*

TABLE OF CONTENTS

ACRONYMS

ACWP	Actual Cost of Work Performed
ANSI	American National Standards Institute
BCWP	Budgeted Cost for Work Performed
BCWS	Budgeted Cost for Work Scheduled
CBB	Contract Budget Base
CD	Critical Decision
DoD	Department of Defense
DOE	Department of Energy
EAC	Estimates of Cost at Completion
EVMS	Earned Value Management System
FPD	Federal Project Director
IPT	Integrated Project Team
LOE	Level of Effort
LOIs	Lines of Inquiry
OMB	Office of Management and Budget
NDIA	National Defense Industrial Association
PEP	Project Execution Plan
RM	Review Module
TPC	Total Project Cost
WBS	Work Breakdown Structure

I. INTRODUCTION

In recent years Department of Energy (DOE) has developed a number of orders, and guidance documents aimed to improve the overall performance of project management and the acquisition of capital assets with the DOE complex. One of the most important activities or products required by DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Assess,* to strengthen the overall performance of project management and the acquisition of capital assets is the Earned Value Management System (EVMS). EVMS allows both government and contractor managers to gain significant insights into technical, cost, and schedule progress of contracts and projects. The implementation of an EVMS is widely recognized as a key component of program and project management. It ensures that the linkages and relationships between cost, schedule and technical aspects of the contract are integrated and visible.

In accordance with DOE O 413.3A, an EVMS is the integrated set of policies, processes, procedures, systems, and practices that meet the intent of the guidelines identified in American National Standards Institute (ANSI) /EIA-748-B-2007, *Earned Value Management Systems*. This system is generally documented by a system description and procedures that translate the Earned Value Management Policy into specific organizational approaches of how the 32 guidelines in ANSI/EIA-748-B-2007 will be executed. For projects executed under firm fixed price contracts or Level of Effort (LOE) contracts, the Secretarial Acquisition Executive may approve an alternative performance management system. An EVMS or alternative performance management system should be described in the Project Execution Plan (PEP).

II. PURPOSE

The EVMS is originally certified by the Office of Construction and Management (OECM). The certification process involves reviewing and certifying that the design and implementation of a contractor's EVMS is in conformance with ANSI/EIA-748 primarily for DOE O 413.3A projects. Subsequent to the EVMS certification, EVMS surveillance is conducted by EM, the contractor, and OECM. Surveillance is the recurring process of reviewing a contractor's EVMS to ensure continued compliance with ANSI/EIA-748. An effective surveillance process ensures that the key elements and the use of an EVMS are maintained over time and to ensure that the contractor is continuing to use their EVMS effectively to monitor and manage cost, schedule, and technical performance.

This Earned Value Management System (EVMS) Review Module (RM) is a tool that assists EM federal project review teams in conducting surveillances of the project's progress after EVMS certification. The implementation of an EVMS ensures that management is provided with valid, timely, and auditable cost and schedule performance information. This Review Module provides EVMS performance expectations and criteria to ensure that the project under review is:

- Correlating technical, scope, schedule, and cost elements with the project Work Breakdown Structure
- Planning all work to be completed

- Integrating technical, scope, schedule, and cost elements into a baseline plan at the work control account level against which performance can be measured
- Assessing accomplishments at the work performance level
- Analyzing significant variances from the plan and forecasting the impacts
- Providing data to management for decision making, and identifying and implementing corrective actions.
- Ensuring that the EVMS provides a realistic estimate-at-complete (EAC) that considers the entire effort anticipated to achieve the end state, and not just the effort required until the next increment of funding is awarded.

III. ROLES AND RESPONSIBILITIES

A successful EVMS review depends on an experienced and qualified team. The team should be augmented with appropriate subject matter experts selected to complement the specific concerns of the project being reviewed. Management support is another necessary component to a successful EVMS review. Field element managers, as well as the Federal Project Director (FPD) must recognize the importance of the EVMS review and facilitate the resources necessary for its execution. This also requires appropriate interfaces with EM headquarters personnel who may direct or participate in the EVMS review process.

The roles and responsibilities for all involved in the EVMS review must be clear and consistent with various requirements of DOE O 413.3A. The table below provides a compilation of EVMS review roles and responsibilities.

Position	Responsibility
Field Element Manager	Provides support and resources to the Federal Project Director and Review Team Leader in carrying out the review.
	Facilitates the conduct of the review. Assigns office space, computer equipment, and support personnel to the team as necessary to accomplish the review in the scheduled time frame
Federal Project Director	Identifies the need for an EVMS review and determines the scope of the review effort.
	In conjunction with the Contractor Project Manager, develops the briefing materials and schedule for the review activities.
	Coordinates the review team pre-visit activities and follows up review team requests for personnel to interview or material to review.
	Coordinates the necessary training and orientation activities to enable the review team members to access the facility and perform the review.
	Unless other personnel are assigned, acts as the site liaison with the review team. Tracks the status of requests for additional information.
	Coordinates the Federal site staff factual accuracy review of the draft report.
	Leads the development of the corrective action plan if required. Tracks the completion of corrective actions resulting from the review.
Review Team Leader	In coordination with the Federal Project Director selects the areas to be reviewed.

Position	Responsibility
	Based on the areas selected for review, project complexity and hazards involved, selects the members of the review team.
	Verifies the qualifications: technical knowledge; process knowledge; facility specific information; and independence of the Team Members.
	Leads the review pre-visit.
	Leads the review team in completing the Review Criteria for the various areas to be reviewed.
	Coordinates the development of the data call and forwards to the Federal Project Director, a list of documents, briefings, interviews, and presentations needed to support the review.
	Forwards the final review plan to the FPD for approval.
	Leads the on-site portion of the review.
	Ensures the review team members complete and document their portions of the review and characterizes the findings.
	Coordinates incorporation of factual accuracy comments by Federal and Contractor personnel on the draft report.
	Forwards the final review report to the Project Director for consideration in making the decision to authorize approval of the Critical Decision (CD).
	Participates, as necessary in the closure verification of the findings from the review report.
Review Team Member	Refines and finalizes the criteria for assigned area of the review.
	Develops and provides the data call of documents, briefings, interviews, and presentations needed for his or her area of the review.
	Completes training and orientation activities necessary for the review. Conducts any necessary pre visit document review.
	Participates in the on-site review activities, conducts interviews, document reviews, walk downs, and observations as necessary.
	Based on the criteria and review approaches in the Review Plan, assesses whether his/her assigned criteria have been met.
	Documents the results of the review for his or her areas. Prepares input to the review report.
	Makes recommendations to the Review Team Leader for characterization of findings in his/her area of review.
	Resolves applicable Federal and Contractor factual accuracy comments on the draft review report.
	Prepares the final review report for his or her area of review.

IV. REVIEW SCOPE AND CRITERIA

This EVMS RM provides a set of Performance Objectives and Criteria which are consistent with DOE O 413.3A, its associated guides, ANSI/EIA-748, and other references cited in Section VI. For each review area listed below, Appendix A of this RM provides the Performance Objectives and Criteria. These Performance Objectives and Criteria will provide consistent guidance to project-specific EVMS review teams to develop their Lines of Inquiry (LOIs). The Performance Objectives and Criteria were specifically developed to be generic in nature to ensure that they are applicable to as many DOE projects as possible. Therefore, it is essential that the review team

use these key elements as a starting point, and that more detailed project specific LOIs is developed to ensure that the project is adequately evaluated.

When conducting specific project EVMS surveillances, the selection of the EVMS review topics for the surveillance is a decision of the review team. The surveillance scope should depend on factors such as at what CD phase the project is in, any cost re-baseline request by the project, and scope of previous surveillances.

Contract, Procurement, and Critical Decision Requirements

This review area focuses on whether the DOE O 413.3A requirements are implemented by the EM projects. This area addresses contract, procurement and Critical Decision requirements.

EVMS Organization

This review area focuses on whether the project has an EVMS organization structure. The review topics include:

- Authorized work elements for the project, such as Work Breakdown Structure (WBS)
- Project organizational structure
- Integration of planning, scheduling, budgeting, work authorization, and cost accumulation processes
- Project overhead control
- Integration of WBS and organization structure

EVMS Planning, Scheduling, and Budgeting

This review area focuses on whether the project has established an EVMS planning, scheduling and budgeting process. The review topics include:

- Scheduling of authorized work
- Identification of products, milestones, performance goals, or other indicators for measuring progress
- Time-phased budget baseline
- Management reserves

EVMS Accounting Considerations

This review area focuses on whether the project has established an EVMS accounting system. The review topics include:

- Direct costs determination
- Indirect costs determination
- Material accounting

EVMS Analysis and Management Reports

This review area focuses on whether the project has established an EVMS analytical and reporting process. The review topics include:

- Monthly information at the control account and other levels
- Significant differences between planned and actual schedule and cost performances
- Summarization of data elements and associated variances
- Managerial actions based on result of earned value information.

EVMS Revisions and Data Maintenance

This review area focuses on whether the project has established a process for revisions and data maintenance. The review topics include:

- Incorporation of authorized changes in timely matter
- Reconciliation of current budgets to prior budgets
- Prevention of budget revisions except for authorized changes
- Change documentation to performance measurement baseline.

V. REVIEW PLANS AND DOCUMENTATION

The results of an EVMS review will be used by EM management, including the FPD, and ultimately the Acquisition Executive to help determine to what extent the EVMS fulfill its objective of providing management with an early warning system. The results of the review should determine the potential problem areas and how they should be addressed.

It is important to clearly document the methods, assumptions and results of the EVMS review. This review can be conducted as part of other project reviews including performance baseline review for CD-2 approval. The EVMS review should be conducted periodically beginning early in the Critical Decision (CD) process and through completion of CD-4, start of operations.

The following activities should be conducted as part of the Review Plan development and documentation/closure of the review:

- Subsequent to the selection, formation and chartering of the review team and receipt and review of the prerequisite documents, assignment of responsibilities for the development of specific lines of inquiry should be made.
- The review team members should develop specific lines of inquiry utilizing the topics and areas listed in the respective appendices of this module.
- The individual lines of inquiry should be compiled and submitted to the manager authorizing the review for concurrence prior to starting the review.

- The project-specific review plan should be compiled with a consistent and uniform numbering scheme that provided for a unique identifier for each line of inquiry, arranged by subject such that the results of each line of inquiry can be documented and tracked to closure.
- The lines of inquiry should be satisfied via document review and personnel interviews and any combination of these methods. The method used the basis for closure/comment/finding and the result of the inquiry should all be documented and tracked.

The overall Standard Review Plan (SRP) provides guidelines for preparing a Review Plan and a final report.

VI. REFERENCES

- DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of*
- *Capital Assets*
- DOE G 413.3-10, *Earned Value Management System*
- DOE G 413.3-5, *Performance Measurement Baseline*
- FAR Subparts 34.2 and 52.234, *Earned Value Management System*, 2008
- OMB Circular A-11, Part 7, *Planning, Budgeting, Acquisition, and Management of*
- *Capital Assets, includes supplement, Capital Planning Guide*, 2007
- ANSI/EIA-748-B-2007, *Earned Value Management Systems*, 2007
- GAO-07-1134SP, *Cost Assessment Guide – Best Practices for Estimating and Managing*
- *Program Costs*
- National Defense Industrial Association (NDIA) PMSC, *Earned Value Management Systems Intent Guide*, 2006
- NDIA PMSC, *Surveillance Guide*, 2004
- Department of Defense (DoD) EVMS website, http://www.acq.osd.mil/pm.
- DoD DI-MGMT-81466A, *Contract Performance Report*

APPENDIX A - PERFORMANCE OBJECTIVES AND CRITERIA

Legend of EVMS Review Topics

Review Topical Area	Identifier
Contract, Procurement, and Critical Decision Requirements	CO
EVMS Organization	OR
EVMS Planning, Scheduling, and Budgeting	PL
EVMS Accounting Considerations	AC
EVMS Analysis and Management Reports	AN
EVMS Revisions and Data Maintenance	RE

ID #	Performance Objectives and Criteria[2]	Met?
Contract, Procurement, and Critical Decision Requirements		
CO-1	Is the project implementing an EVMS, as required by DOE O 413.3A and contractual requirements for projects with a total project cost (TPC) greater than or equal to $20M?	
CO-2	As required by the Federal Acquisition Regulation (FAR) 52.234-4 and Office of Management and Budget (OMB), does the EVMS comply with ANSI/EIA-748, *Earned Value Management System*, at the time of contract award?	
	If the timing is after contract award, has the EVMS maintained compliance? **(CO-2.1)**	
	Who has certified the system and when? **(CO-2.2)**	
	What are the credentials of the person or organization who certified the system? **(CO-2.3)**	
CO-3	Is the EVMS described in the project control documents, including the Project Execution Plan (PEP)?	
CO-4	Is the EVMS applied early in the project life cycle, and is it applied prior to CD-2 for project performance baseline approval?	
CO-5	If an EVMS is not used, e.g., firm fixed price contracts, does the project use an alternative performance management system and it must be described in the PEP that is approved by the acquisition executive?	
CO-6	Is the EVMS certified prior to CD-3 (it should be a condition for CD-3 approval)?	
CO-7	Is the EVMS data being used to report project performance by the Federal Project Director, Integrated Project Team (IPT) and contractor management, and that management action is taking place as an outcome of the EVMS analysis, including variance analysis?	
CO-8	If the project has a certified EVMS, is there a surveillance system in place to maintain the system for continued compliance with the ANSI/EIA-748?	

[2] *The site should provide the technical bases and assumptions that support the answers provided to each Line of Inquiry. If possible, the review teams should independently verify the technical bases and assumptions.*

ID #	Performance Objectives and Criteria[2]	Met?
CO-9	Is the EVMS being used by EM management, site or project management (including the FPD), and ultimately the Acquisition Executive, as an early warning system to help determine to what extent the EVMS fulfill its objective of providing management with an early warning system?	
	If the answer to CO-9 is yes, are documented examples available that demonstrate the value of the system? **(CO-9.1)**	
	Is management seeing or have access to the low level EVM information, or are they receiving a rolled up version of the data? **(CO-9.2)**	
CO-10	Do the EVMS results provide sufficient information for EM headquarters and site/project personnel (including the contractor) for determining the problem areas and how they should be addressed?	
EVMS Organization		
OR-1	Has the project defined a Work Breakdown Structure (WBS), tailored for effective internal management control?	
	Is the same WBS being used for EVMS and cost estimating? **(OR-1.1)**	
	Is the same WBS also being used for other aspects of the program (technical, scheduling, etc.)? **(OR-1.2)**	
	Is all project work included in the WBS, including a complete definition of work scope requirements? **(OR-1.3)**	
	Are the following items included in the WBS? **(OR-1.4)** • Contract line items and end items • All WBS elements specified for external reporting • WBS elements to be subcontracted, with identification of subcontractors • Control account levels	
OR-2	Has the project defined an organizational structure, including the major subcontractors responsible for accomplishing the authorized work, and define the organizational elements in which work will be planned and controlled?	
	Are all authorized tasks assigned to identified organizational elements? **(OR-2.1)** Note: This must occur at the control account level as a minimum.	
	Is subcontracted work defined and identified to the appropriate subcontractor within the proper WBS element? **(OR-2.2)**	
OR-3	Has the project integrated its planning, budgeting, work authorization and cost accumulation processed with each other, and as appropriate, the WBS and the project organizational structure?	
	Are the management control systems listed above integrated with each other, the WBS, and the organizational structure at the following levels? • Total contract • Control account **(OR-3.1)**	
OR-4	Has the project organization or function responsible for controlling overhead (indirect costs) been defined?	

ID #	Performance Objectives and Criteria[2]	Met?
	Are the following organizational elements and managers clearly identified? • Those responsible for the establishment of budgets and assignment of resources for overhead performance • Those responsible for overhead performance control of related costs **(OR-4.1)**	
	Do the managers have the appropriate qualifications, training, and resources (e.g., historical data systems) in order to generate realistic estimates of cost and performance? **(OR-4.2)**	
	What organizational procedures are in place to ensure that overhead costs are not omitted or double counted? **(OR-4.3)**	
	Are the responsibilities and authorities of each of the above organizational elements or managers clearly defined? **(OR-4.4)**	
OR-5	Has the project integrated the WBS and the program organizational structure in a manner that permits cost and schedule performance measurement by elements of either or both structures as needed?	
	Is each control account assigned to a single organizational element directly responsible for the work and identifiable to a single element of the WBS? **(OR-5.1)**	
	Are the following elements for measuring performance available at the levels selected for control and analysis? **(OR-5.2)** • Budgeted cost for work scheduled • Budgeted cost for work performed • Actual cost of work performed	
EVMS Planning, Scheduling, and Budgeting		
PL-1	Has the project scheduled the authorized work in a manner which describes the sequence of work and identifies significant task interdependencies requires to meet the requirements of the project?	
	Has the schedule been resource loaded? **(PL-1.1)**	
	Is the schedule integrated with the cost estimate? **(PL-1.2)**	
	Does the scheduling system contain the following? **(PL-1.3)** • A master program schedule • Intermediate schedules, as required, which provide a logical sequence from the master schedule to the control account level • Detailed schedules which support control account and work package start and completion dates/events	
	Are significant decision points, constraints, and interfaces identified as key milestones? **(PL-1.4)**	
	Does the scheduling system provide for the identification of work progress against technical and other milestones, and also provide for forecasts of completion dates of scheduled work? Also, To what extent do these technical and other milestones relate to the earned value methods employed in the EVMS for assessing Budgeted Cost for Work Performed (BCWP)? **(PL-1.5)**	
	Are work packages formally scheduled in terms of physical accomplishment by Gregorian, Julian, or manufacturing day? **(PL-1.6)**	
	Does the schedule support the development of a critical path? **(PL-1.7)**	

ID #	Performance Objectives and Criteria[2]	Met?
PL-2	Has the project identified physical products, milestones, technical performance goals, or other indicators that will be used to measure progress?	
	Are meaningful indicators identified for use in measuring the status of cost and schedule performance? Are these indicators used or proposed are meaningful to the responsible/accountable person(s), and not just the EVM team? **(PL-2.1)**	
	Does the system identify work accomplishment against the schedule plan? **(PL-2.2)**	
	Are current work performance indicators and goals relatable to original goals as modified by contractual changes, re-planning, and reprogramming actions? **(PL-2.3)**	
PL-3	Has the project established and maintained a time-phased budget baseline, at the control account level, against which program performance can be measured?	
	How was the baseline developed? **(PL-3.1)**	
	Has the baseline been checked for accuracy, double counting and omissions? **(PL-3.2)**	
	What historical data and methodologies were employed in developing the baseline? **(PL-3.3)**	
	What were the credentials and qualifications relative to the practice of cost estimating of those responsible for developing the baseline? **(PL-3.4)**	
	Have cross checks and/or independent cost estimates been developed? **(PL-3.5)**	
	Does the performance measurement baseline consist of the following? **(PL-3.6)** • Time-phased control account budgets • Higher level WBS element budgets (where budgets are not yet broken down into control account budgets) • Undistributed budgets, if any • Indirect budgets, if not included in the above	
	Is the entire contract planned in time-phased control accounts to the extent practicable? **(PL-3.7)**	
	In the event that future contract effort cannot be defined in sufficient detail to allow the establishment of control accounts, is the remaining budget assigned to the lowest practicable WBS level elements for subsequent distribution to control accounts? **(PL-3.8)**	
	Does the project require sufficient detailed planning of control accounts to constrain the application of budget initially allocated for future effort to current effort? **(PL-3.9)**	
	Are control accounts opened and closed based on the start and completion of work contained therein? **(PL-3.10)**	
	Do the control account budgets reflect the planned resources to perform the requirements and only exceed the Contract Budget Base (CBB) when an OTB has been authorized? **(PL-3.11)**	
PL-4	Has the project establish budgets for authorized work with identification of significant cost elements (labor, material, etc.) as needed for internal management and for control of subcontractors?	

ID #	Performance Objectives and Criteria[2]	Met?
	Does the budgeting system contain the following? **(PL-4.1)** • Total budget for the contract (including estimates for authorized but un-priced work) • Budgets assigned to major functional organizations • Budgets assigned to control accounts	
	Are the budgets assigned to control accounts planned and identified in terms of the following cost elements? **(PL-4.2)** • Direct labor dollars and/or hours • Material and/or subcontract dollars • Other direct dollars	
	Does the work authorization system contain the following? **(PL-4.3)** • Authorization to proceed with all authorized work • Appropriate work authorization documents which subdivide the contractual effort and responsibilities, within functional organizations	
PL-5	Has the project identified the authorized work in discrete work packages, and establish budgets for this work in terms of dollars, hours, or other measurable units?	
	Do work packages reflect the actual way in which the work will be done and are they meaningful products or management-oriented subdivisions of a higher level element of work? **(PL-5.1)**	
	Are detailed work packages planned as far in advance as practicable? **(PL-5.3)**	
	Is work progressively subdivided into detailed work packages as requirements are defined? **(PL-5.2)**	
	Is future work which cannot be planned in detail subdivided to the extent practicable for budgeting and scheduling purposes? **(PL-5.3)**	
	Are work packages reasonably short in time duration or do they have adequate objective indicators/milestones to minimize subjectivity of the in process work evaluation? **(PL-5.4)**	
	Do work packages consist of discrete tasks which are adequately described? **(PL-5.5)** Note: "Adequately described" means that details are provided relative to the cost (labor hours and material) and related technical and programmatic (schedule, quantity, etc.) parameters. Additionally, the specific resources needed to perform the work should be identified (labor categories, materials, etc.)	
	Can the supplier substantiate work package and planning package budgets? **(PL-5.6)**	
	Are budgets or values assigned to work packages and planning packages in terms of dollars, hours, or other measurable units? **(PL-5.7)**	
	Are work packages assigned to performing organizations? **(PL-5.8)**	

ID #	Performance Objectives and Criteria[2]	Met?
	Where engineering standards or other internal work measurement systems are used, is there a formal relationship between these values and work package budgets? Engineering standards should relate to industrial engineering standards, not based on professional judgment or subject matter expertise. **(PL-5.9)**	
	Where "learning" is used in developing underlying budgets, is there a direct relationship between anticipated learning and time phased budgets? **(PL-5.10)**	
	Have qualified program personnel reviewed the documentation supporting the work package and planning package estimates for credibility, accuracy and completeness? **(PL-5.11)**	
PL-6	Does the project provide the sum of all work package budgets plus planning package budgets within a control account equals the control account budget?	
	Does the sum of all work package budgets plus planning packages within control accounts equal the budgets assigned to those control accounts? **(PL-6.1)**	
PL-7	Does the project identify and control level of effort (LOE) activity by time-phased budgets established for this purpose?	
	Are time-phased budgets established for planning and control of level of effort activity by category of resource; for example, type of manpower and/or material? **(PL-7-1)**	
	Is work properly classified as measured effort, LOE, or apportioned effort and appropriately separated? **(PL-7.2)**	
	Is LOE held to the lowest practical level and budgeted on a time-phased basis? **(PL-7.3)**	
PL-8	Has the project establish overhead budgets for each significant organizational component of the project for expenses which will become indirect costs? Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned as indirect costs.	
	Are overhead cost budgets (or projections) established on a facility-wide basis at least annually for the life of the contract? **(PL-8.1)**	
	Are overhead cost budgets established for each organization which has authority to incur overhead costs? **(PL-8.2)**	
	Are all elements of indirect expense identified to overhead cost budgets of projections? **(PL-8.3)**	
	Are overhead budgets and costs being handled according to the disclosure statement when applicable, or otherwise properly classified (for example, engineering overhead, IR&D)? **(PL-8.4)**	
	Is the anticipated (firm and potential) business base projected in a rational, consistent manner? **(PL-8.5)**	
	Are overhead costs budgets established on a basis consistent with anticipated direct business base? **(PL-8.6)**	
	Are the requirements for all items of overhead established by rational, traceable processes? **(PL-8.7)**	
	Are the overhead pools formally and adequately identified? **(PL-8.8)**	
	Are the organizations and items of cost assigned to each pool identified? **(PL-8.9)**	

ID #	Performance Objectives and Criteria[2]	Met?
	Are projected overhead costs in each pool and the associated direct costs used as the basis for establishing interim rates for allocating overhead to contracts? **(PL-8.10)**	
	Are projected overhead rates applied to the contract beyond the current year based on the following? **(PL-8.11)** • Supplier financial periods; for example, annual • The projected business base for each period • Contemplated overhead expenditure for each period based on the best information currently available Note: When evaluating the projected business base, the reviewer(s) should evaluate: how realistic is the project business base; and how sensitive is the performance measure baseline to change in the business base.	
	Are overhead projections adjusted in a timely manner to reflect the following? **(PL-8.12)** • Changes in the current direct and projected base • Changes in the nature of the overhead requirements • Changes in the overhead pool and/or organization structures	
	Are the WBS and organizational levels for application of the projected overhead costs identified? **(PL-8.13)**	
PL-9	Has the project identified management reserves and undistributed budget?	
	Are all budgets available as management reserve identified and excluded from the performance measurement baseline? **(PL-9.1)**	
	Are records maintained to show how management reserves are used (sources, uses, control account affected, current value)? **(PL-9.2)**	
	Is undistributed budget limited to contract effort which cannot yet be planned to WBS elements at or below the level specified for reporting to the Government? **(PL-9.3)** Note: For evaluating the dollar amounts already in the undistributed budge, the reviewer(s) should evaluate: how long have they been there, and what are the reasons for not distributing those dollars.	
	Are records maintained to show how undistributed budgets are controlled (sources, uses, control account affected, current value)? **(PL-9.4)**	
PL-10	Has the project target cost goal reconciled with the sum of all internal program budgets and management reserves?	
	Does the system description or procedures require that the performance measurement baseline plus management reserve equal the contract budget base? **(PL-10.1)**	
	Do the sum of the control account budgets for higher level WBS elements, undistributed budget, and management reserves reconcile with the contract target cost plus the estimated cost for authorized un-priced work? **(PL-10.2)**	
EVMS Accounting Considerations		
AC-1	Has the project record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account?	

ID #	Performance Objectives and Criteria[2]	Met?
	Does the accounting system provide a basis for auditing records of direct costs chargeable to the contract? **(AC-1.1)**	
	Are elements of direct cost (labor, material, and so forth) accumulated within control accounts in a manner consistent with budgets using recognized acceptable costing techniques and controlled by the general books of account? **(AC-1.2)**	
AC-2	When a WBS is used, does the project summarize direct costs from control accounts into the WBS without allocation of a single control account to two or more work breakdown structure elements?	
	Is it possible to summarize direct costs from the control account level through the WBS to the total contract level without allocation of a lower level WBS element to two or more higher level WBS elements? **(AC-2.1)**	
AC-3	Has the project summarized direct costs from the control accounts into the organizational elements without allocation of a single control account to two or more organizational elements?	
	Is it possible to summarize direct costs from the control account level to the highest functional organizational level without allocation of a lower level organization's cost to two or more higher level organizations? **(AC-3.1)**	
AC-4	Has the project record all indirect costs which will be allocated to the contract?	
	Does the cost accumulation system provide for summarization of indirect costs from the point of allocation to the contract total? **(AC-4.1)**	
	Are indirect costs accumulated for comparison with the corresponding budgets? **(AC-4.2)**	
	Do the lines of authority for incurring indirect costs correspond to the lines of responsibility for management control of the same components of costs? (Explain controls for fixed and variable indirect costs.) **(AC-4.3)**	
	Are indirect costs charged to the appropriate indirect pools and incurring organization? **(AC-4.4)**	
	Are the bases and rates for allocating costs from each indirect pool consistently applied? **(AC-4.5)**	
	Are the bases and rates for allocating costs from each indirect pool to commercial work consistent with those used to allocate such costs to Government contracts? **(AC-4.6)**	
	Are the rates for allocating costs from each indirect cost pool to contracts updated as necessary to ensure a realistic monthly allocation of indirect costs without significant year-end adjustments? **(AC-4.7)**	
	Are the procedures for identifying indirect costs to incurring organizations, indirect cost pools, and allocating the costs from the pools to the contracts formally documented? **(AC-4.8)**	
AC-5	Has the project identify unit costs, equivalent unit costs, or lot costs when needed?	
	Does the project's system provide unit costs, equivalent unit or lot costs in terms of labor, material, and other direct and indirect costs? **(AC-5.1)**	

ID #	Performance Objectives and Criteria[2]	Met?
	Does the project have procedures which permit identification of recurring or non-recurring costs as necessary? **(AC-5.2)**	
AC-6	Does the project's material accounting system provide for following? • Accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable, costing techniques. • Cost performance measurement at the point in time most suitable for the category of material involved, but no earlier than the time of progress payments or actual receipt of material. • Full accountability of all material purchased for the program including the residual inventory.	
	Does the project's system provide for accurate cost accumulation and assignment to control accounts in a manner consistent with the budgets using recognized acceptable costing techniques? **(AC-6.1)**	
	Are material costs reported within the same period as that in which BCWP is earned for that material? **(AC-6.2)** Note: When evaluating this area, the reviewer(s) should keep in mind that this is a typical problem. The project may way to claim earned value because the work was completed, but due to accounting delays the costs are reported later. The data can be screened for problems like these by applying some simple logic checks on the data (e.g., in a given period for a given WBS element, there are values for Budgeted Cost for Work Scheduled (BCWS) and Actual Cost of Work Performed (ACWP) but no BCWP, or there are values for BCWS and BCWP but no ACWP).	
	Does the project's system provide for determination of price variance by comparing planned versus actual commitments? **(AC-6.3)**	
	Is cost performance measurement at the point in time most suitable for the category of material involved, but no earlier than the time of actual receipt of material? **(AC-6.4)**	
	Does the project's system provide for the determination of cost variances attributable to the excess usage of material? **(AC-6.5)**	
	Does the project's system provide unit or lot costs when applicable? **(AC-6.6)**	
	Are records maintained to show full accountability for all material purchased for the contract, including the residual inventory? **(AC-6.7)**	
EVMS Analysis and Management Reports		
AN-1	Does the project, at least on a monthly basis, generate the following information at the control account and other levels as necessary for management control using actual cost data from, or reconcilable with, the accounting system? • Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance. • Comparison of the amount of the work budget earned and the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.	

ID #	Performance Objectives and Criteria[2]	Met?
	Does the supplier's system include procedures for measuring performance of the lowest level organization responsible for the control account? **(AN-1.1)**	
	Does the project's system include procedures for measuring the performance of critical subcontractors? **(AN-1.2)**	
	Do subcontractors submit earned value reports to the prime, or directly to the government? **(AN-1.3)**	
	Are subcontract costs treated the same as material costs and rolled into the prime contractors EVM report as part of a control account? **(AN-1.4)**	
	Do subcontractors submit earned value reports to the prime, or directly to the government? **(AN-1.5)**	
	Are subcontract costs treated the same as material costs and rolled into the prime contractors EVM report as part of a control account? **(AN-1.6)**	
	Is cost and schedule performance measurement done in a consistent, systematic manner? **(AN-1.7)**	
	Are the actual costs used for variance analysis reconcilable with data from the accounting system? **(AN-1.8)**	
	Is budgeted cost for work performed calculated in a manner consistent with the way work is planned? **(AN-1.9)**	
	Does the scheduling system identify in a timely manner the status of work? **(AN-1.10)**	
	Does the project use objective results, design reviews, and tests to trace schedule? **(AN-1.11)**	
AN-2	Does the project identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for the variances in the detail needed by program management?	
	Does the project have variance analysis procedures and a demonstrated capability for identifying (at the control account and other appropriate levels) cost and schedule variances resulting from the system which: • Identify and isolate causes of favorable and unfavorable cost and schedule variances • Evaluate the performance of operating organizations • Identify potential or actual overruns and under runs? **(AN-2.1)**	
	Does the project have variance analysis procedures and a demonstrated capability for identifying cost and schedule variances resulting from the system which Identify potential or actual budget-based and time-based schedule variances? **(AN-2.2)**	
	Does the project have variance analysis procedures and a demonstrated capability for identifying cost and schedule variances resulting from the system which evaluate the cause and impact of schedule changes, work around, etc. in sufficient detail needed for program management? **(AN-2.3)**	
	Does the scheduling system identify in a timely manner the status of work? **(AN-2.4)**	

ID #	Performance Objectives and Criteria[2]	Met?
	Does the project use objective results, design reviews and tests to trace schedule performance? **(AN-2.5)**	
AN-3	Does the project identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with the reasons for any significant variances?	
	Are the variances between budgeted and actual indirect costs identified and analyzed at the level of assigned responsibility for their control (indirect pool, department, etc.)? **(AN-3.1)**	
	Does the cost control system provide for capability to identify the existence and root causes of cost variances resulting from— • Incurrence of actual indirect costs in excess of budgets, by element of expense? • Changes in the direct base to which overhead costs are allocated? **(AN-3.2)**	
	Are management corrective actions taken to reduce indirect costs when there are significant adverse variances? **(AN-3.3)**	
AN-4	Does the project summarize the data elements and associated variances through the program organization and/or work breakdown structure to support management needs and any reporting specified in the contract? Note: The reviewer(s) should also evaluate whether the project personnel analyze the data from the project start to the current period. These types of analyses are useful for identifying trends and generating forecasts.	
	Are data elements (BCWS, BCWP, and ACWP) progressively summarized from the detail level to the contract level through the WBS? **(AN-4.1)**	
	Are data elements summarized through the functional organizational structure for progressively higher levels of management? **(AN-4.2)**	
	Are data elements reconcilable between internal summary reports and reports forwarded to DOE? **(AN-4.3)**	
	Are procedures for variance analysis documented and consistently applied at the control account level and selected WBS and organizational levels at least monthly as a routine task? **(AN-4.4)**	
	Do management actions plans include corrective actions plan/mitigation plan, task, milestones, exit criteria, schedules? **(AN-4.5)**	
AN-5	Does the project implement managerial actions taken as the result of earned value information?	
	Is data disseminated to the project's management timely, accurate, and usable? **(AN-5-1)**	
	Are data being used by managers in an effective manner to ascertain program or functional status, to identify reasons or significant variance, and to initiate appropriate corrective action? **(AN-5-2)**	
	Are there procedures for monitoring action items and corrective actions to the point of resolution and are these procedures being followed? **(AN-5-3)**	
AN-6	Has the project develop revised estimates of cost at completion (EAC) based on performance to date, commitment values for material, and estimates of future conditions?	

ID #	Performance Objectives and Criteria[2]	Met?
	Are estimates of costs at completion based on- • Performance to date and material commitment • Actual costs to date • Knowledgeable projections of future performance • Estimates of the cost for contract work remaining to be accomplished considering economic escalation • Emerging risks and opportunities within the project's risk register which will impact integrated master schedule and resource plan for the remainder of the work? **(AN-6.1)** Note: When evaluating this LOI, the reviewer(s) should also ask who generated the estimates and what their qualifications are and experience base related to cost estimating. Also, the reviewer(s) should ask for the EAC documentation in order to review the basis of estimates and look for evidence of the use of actual costs to date, performance to date, etc.	
	Are the overhead rates used to develop the contract cost estimate to complete based on- • Historical experience? • Contemplated management improvements? • Projected economic escalation? • The anticipated business volume? **(AN-6.2)**	
	Are EACs generated with sufficient frequency to provide identification of future cost problems in time for possible corrective or preventive actions by both the contractor and DOE? What methods are employed to generate the EACs? **(AN-6.3)** Note: The reviewer(s) should know that a typical answer to this question may indicate EACs are generated on a monthly basis – however, those EACs are typically generated using a "canned" formula (e.g., BAC/CPI) and are not considered very reliable.	
	Do the EACs reflect a realistic projection of future scope, or merely reflect the scope included in the near-term baseline? **(AN-6.4)**	
	Are estimates developed by project personnel coordinated with those responsible for overall project management to determine whether required resources will be available according to revised planning? **(AN-6.5)**	
	Are estimates of cost at completion generated by knowledgeable personnel for the following levels: • Control accounts • Major functional areas of contract effort • Major subcontracts • WBS elements contractually specified for reporting of status to the DOE (lowest level only) • Total contract (all authorized work)? **(AN-6.6)**	
	Are the latest revised estimates of costs at completion compared with the established budgets at appropriate levels and causes of variances identified? **(AN-6.7)**	

ID #	Performance Objectives and Criteria[2]	Met?
	Are estimates of costs at completion generated in a rational, consistent manner? Are procedures established for appropriate aspects of generating estimates of costs at completion? **(AN-6.8)**	
	Are estimates of costs at completion utilized in determining contract funding requirements and reporting them to the DOE? **(AN-6.9)**	
	Are the project's estimates of costs at completion reconcilable with cost data reported to the DOE? **(AN-6.10)**	
EVMS Revisions and Data Maintenance		
RE-1	Has the project incorporate authorized changes in a timely manner and record the effects of such changes in budgets and schedules?	
	Are authorized changes being incorporated in a timely manner? **(RE-1.1)**	
	Are all affected work authorizations, budgeting, and scheduling documents amended to properly reflect the effects of authorized changes? **(RE-1.2)**	
	Are internal budgets for authorized, but not priced changes based on the project's resource plan for accomplishing the work? **(RE-1.3)**	
	If current budgets for authorized changes do not sum to the negotiated cost for the changes, does the project compensate for the differences by revising the undistributed budgets, management reserves, budgets established for work not yet started, or by a combination of these? **(RE-1.4)**	
RE-2	Does the project reconcile the scope and schedule in addition to the current budgets to prior budgets in terms of changes to the authorized work and internal re-planning in the detail needed by management for effective control?	
	Are current budgets resulting from changes to the authorized work and/or internal re-planning, reconcilable to original budgets for specified reporting items? **(RE-2.1)**	
RE-3	Does the project control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets?	
	Are retroactive changes to direct costs and indirect costs prohibited except for the correction of errors and routine accounting adjustments? **(RE-3.1)**	
	Are direct or indirect cost adjustments being accomplished according to accounting procedures acceptable to DCAA? **(RE-3.2)**	
	Are retroactive changes to BCWS and BCWP prohibited except for correction of errors or for normal accounting adjustments? **(RE-3.3)**	
RE-4	Does the project prevent revisions to the budget except for authorized changes?	
	Are procedures established to prevent changes to the contract budget base other than those authorized by contractual action? **(RE-4.1)**	
	Is authorization of budgets in excess of the contract budget base controlled formally and done with the full knowledge and recognition of the procuring activity? Are the procedures adequate? **(RE-4.2)**	
RE-5	Does the project document changes to the performance measurement baseline?	

ID #	Performance Objectives and Criteria[2]	Met?
	Are changes to the performance measurement baseline made as a result of contractual redirection, formal reprogramming, internal re-planning, application of undistributed budget, or the use of management reserve, properly documented and reflected in the Contract Performance Reports? **(RE-5.1)**	
	Do procedures specify under what circumstances re-planning of open work packages may occur, and the methods to be followed? Are these procedures adhered to? **(RE-5.2)**	
	Are retroactive changes to budgets for completed work specifically prohibited in an established procedure, and is this procedure adhered to? **(RE-5.3)**	
	Are procedures in existence that control re-planning of unopened work packages, and are these procedures adhered to? **(RE-5.4)**	