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**National Defense Industrial Association (NDIA)  
Program Management Systems Committee (PMSC)  
Earned Value Management  
System Acceptance Guide**

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**Working Release for Use and Comment**

November 2006 Released Working Draft

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NDIA PMSC Earned Value Management System Acceptance Guide

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## **ACRONYMS AND ABBREVIATIONS**

AA	Advance Agreement
ANSI/EIA	American National Standards Institute/Electronics Industries Alliance
CAR	Corrective Action Request
CER	Compliance Evaluation Review
EVM	Earned Value Management
EVMIG	Earned Value Management Implementation Guide
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulation
GPRA	Government Performance and Results Act
NDIA	National Defense Industrial Association
OMB	Office of Management and Budget
PAR	Progress Assessment Review
PMSC	Program Management Systems Committee
WBS	Work Breakdown Structure

## **1 INTRODUCTION**

### **1.1 System Acceptance Overview**

System Acceptance is a process that involves the review and approval of an Earned Value Management System (EVMS) that meets the intent of the 32 EVMS Guidelines embodied in the American National Standards Institute/Electronic Industry Alliance (ANSI/EIA) -748 (Current Version), Standard for Earned Value Management Systems, referred to throughout the remainder of this document as the “ANSI/EIA-748.”

### **1.2 Background**

The Government Performance and Results Act (GPRA) and the Office of Management and Budget (OMB) Circular A-11, have increased the requirement on government agencies to establish, maintain, and use an ANSI/EIA-748 compliant EVMS on major, capital asset acquisitions. This, in turn, has greatly expanded the number of suppliers who need to design, implement, and have approved EVM systems that provide timely performance information for both the supplier and the customer during these acquisitions. This requirement has challenged both the government and supplier communities to establish a framework where multiple government agencies can recognize a supplier’s ANSI/EIA-748 compliant EVMS without the need for unnecessary additional compliance reviews or impediments to contract start-up.

To address this issue, the National Defense Industrial Association (NDIA) Program Management Systems Committee (PMSC), with encouragement from OMB, has developed this process as guidance for attaining an EVM system compliance recognition that is acceptable to all stakeholders, both government and commercial customers, and to the suppliers supporting them. The traditional supplier/customer relationship does not have to exist in order to initiate the process established in this guide. For example, a government agency may use this process to assess the appropriate use of EVM at the program level within the agency.

### **1.3 Purpose of the Guide**

This guide defines a process whereby an EVM System Owner (government or industry) with a first-time requirement to comply with the ANSI/EIA-748 can accomplish the following:

- (a) Understand the need for and effectively design an EVMS;
- (b) Evaluate whether the EVMS is capable of meeting the intent of ANSI/EIA-748;
- (c) Implement successfully the EVMS on the requiring acquisition;
- (d) Prepare and provide documentation that substantiates implementation;
- (e) Obtain EVMS compliance recognition that will satisfy current and future requirements for an approved EVMS.

In succeeding sections, appropriate guidance will be provided to assist both the EVM System Owner and the Customer in fulfilling this responsibility. However, this guide

should not be interpreted as adding requirements that must be met in conforming to the ANSI/EIA-748 EVMS Guidelines.

Users of this guide are encouraged to submit recommended revisions to the NDIA PMSC. The NDIA PMSC will review and assess the need for revisions to this guide every two years.

## **1.4 Definitions**

<i>Acceptance Authority</i>	<p>EVM System Acceptance Authority (Acceptance Authority) - An organization or party within a Government Agency or contractor organization responsible for recognizing that a supplier's EVM system proposed for use on a prime or subcontract, or for in-house work, meets the guidelines in ANSI/EIA-748.</p> <p>Examples include the designated Agency EVM Focal Point(s) or Cognizant Contracting Officers within a Federal government, Cognizant Federal Agency, and EVM Executive Agents within contractor organizations.</p>
<i>Advance Agreement (AA)</i>	<p>An agreement between the EVM System Owner and the Acceptance Authority that recognizes the application of a validated EVMS to contracts within the corporation, division, or facility.</p>
<i>ANSI/EIA-748 Accepted EVMS System</i>	<p>An EVM system that has been accepted by an organization, customer, or independent party representing the customer as compliant with the ANSI/EIA-748. This acceptance is typically documented by an EVMS Advance Agreement (AA) or similar document. Acceptance may be documented at a single geographic location or for multiple locations. Multiple accepted systems may also reside within a single geographic location.</p>
<i>Compliance Evaluation Review (CER)</i>	<p>The process to assess and determine EVM System Owner compliance with the ANSI/EIA-748.</p>
<i>Compliance</i>	<p>The characteristic of an EVMS that ensures the intent of the 32 EVMS Guidelines is embodied in the integrated processes and sub processes of a contractor's methods of operation that generate accurate and auditable program performance data.</p>
<i>Customer</i>	<p>The government or commercial organization or entity for which one or more programs are being executed.</p>
<i>Earned Value Management System (EVMS)</i>	<p>The integrated set of policies, processes, procedures, systems, and practices that complies with ANSI/EIA-748.</p>

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## Earned Value Management System Acceptance Guide

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<i>EVMS Guidelines</i>	The 32 EVMS Guidelines contained in the ANSI/EIA-748.
<i>EVM System Owner</i>	The organization or party responsible for assuring the implementation and use of an Earned Value Management System compliant with the ANSI/EIA-748. Examples of EVM System Owners include contractors, subcontractors, Government program offices, and Government activities.
<i>Program</i>	A major, independent part of a capital asset or system that involves a planned effort to achieve an outcome, the progress toward which is discretely measurable. A program may be comprised of multiple projects, delivery orders, task orders, or other recognized terms indicating a bilateral agreement between contracting parties.
<i>Self-assessment</i>	A contractor's or government agency's internal review of the design and implementation of an EVMS to verify compliance with the 32 Guidelines.
<i>Supplier/Vendor</i>	A government or commercial organization or entity from which goods or services are required to complete a program or project.

## 2 THE SYSTEM ACCEPTANCE PROCESS

The steps involved in the process of moving from system design to system acceptance are shown in Figure 2.1 and described in this chapter in general terms. Subsequent chapters describe each of these steps in detail sufficient to allow execution by the EVM System Owner. It should also be noted that these steps may overlap to the extent that resources and capability exist with the EVM System Owner, the customer, or both. All steps, except those in the ‘Acceptance’ column, are necessary for an EVM System Owner or government agency program to implement an EVMS that complies with ANSI/EIA-748. The decision to seek system acceptance is based on internal management desires, contractual requirements, or both.

### NDIA PMSC System Acceptance Process Overview

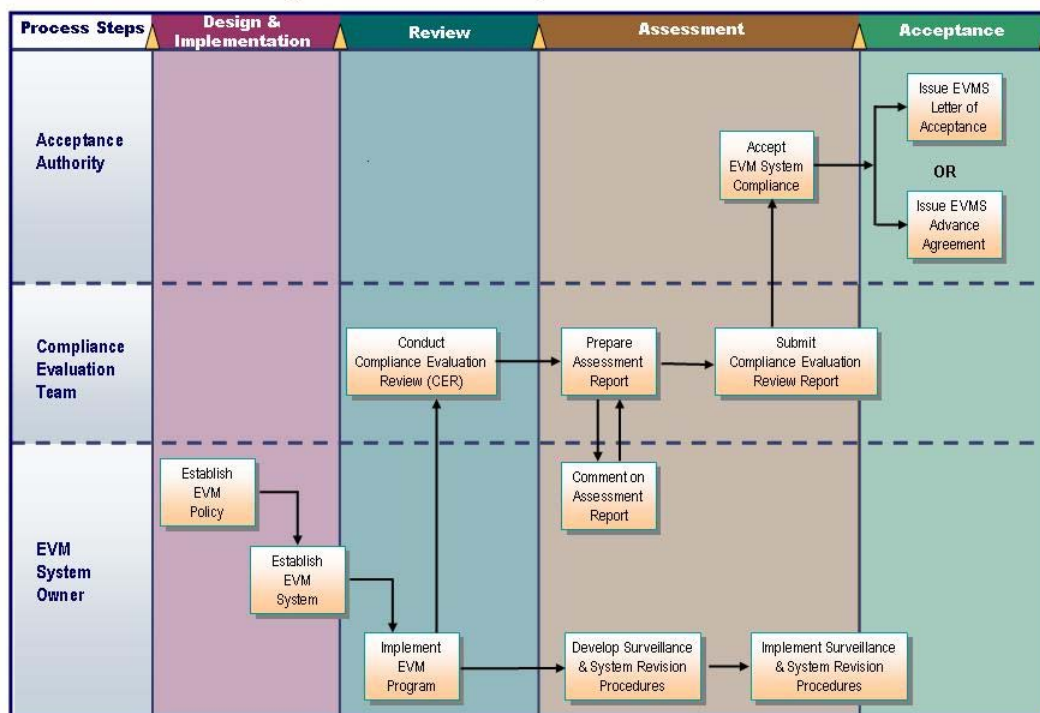


Figure 2.1. The System Acceptance Process involves the System Owner, the Compliance Evaluation Team (CER), and Acceptance Authority.

The time required to execute each step is a function of several factors:

- EVM System Owner resource availability and capability
- Size of the acquisition that is driving the need for compliance recognition
- Maturity level of the organization implementing EVM

- Commitment of the organization and senior management
- Availability of independent parties (customer, consultants, in-house, etc.).

## **2.1 System Design and Implementation.**

Responsibility for the EVMS rests with the EVM System Owner (or a Government agency when an EVM System Owner/Customer relationship does not exist). Therefore the EVM System Owner must initiate and complete this phase. To ensure independence of action during the Compliance Evaluation Review (CER), the customer or Acceptance Authority requiring compliance will not normally participate in the implementation phase.

During this phase, the EVM System Owner is encouraged to establish an EVM Policy that is endorsed and supported by management. This policy, if developed, will describe in general terms how EVM will be applied in the System Owner organization. EVM policies usually include a reference to compliance, the type of programs required to use EVM, and the EVM System Owner responsible for maintenance and surveillance. Establishment of the EVM Policy is then followed by the development and implementation of an EVM System. The EVM System Owner will typically undertake the following actions:

- Compare and document existing project management processes and procedures to ANSI/EIA-748 using the NDIA Earned Value Management Systems Intent Guide
- Identify areas where modification of current procedures or creation of new ones is required. This is sometimes referred to as performing a “gap analysis.”
- Document final processes and procedures ensuring conformance with the ANSI/EIA-748. This documentation can be provided to the Acceptance Authority as evidence of the EVMS that will be used during performance of the contract.
- Select candidate contract(s), project(s), or program(s) for initial implementation and demonstration of the EVMS by a Compliance Evaluation Review (CER) process
- Establish a plan and schedule with resources assigned to ensure proper and effective design, documentation, implementation, and maintenance
- Train the entire program team on EVM and the organization EVM system.

The period of performance for these activities typically ranges from 6 to 18 months.

### **2.1.1 Compliance with the ANSI/EIA-748**

There are various approaches to documenting the processes involved in the structure of an EVMS:

- A single document that describes how program management processes and procedures meet the intent of ANSI/EIA-748, typically referred to as a system description

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- A series of procedural documents that address specific elements of ANSI/EIA-748 (e.g., a Work Breakdown Structure (WBS) procedure or a procedure to establish program or project schedules)
- An integration of EVMS processes and procedures into existing functional procedures, such as engineering, production, and program management.

Regardless of the approach chosen, it is vital that, when completed, the EVM System Owner is assured that all 32 Guidelines of the ANSI/EIA-748 are addressed and that all processes are fully integrated into an approach for program management.

The NDIA Earned Value Management Systems Intent Guide is meant to be used by the EVM System Owner to complete a compliance map of the EVMS to the ANSI/EIA-748. This compliance map verifies for both internal management and external customers or reviewers that the organization has done a comprehensive job of describing an EVMS that meets the intent of the ANSI/EIA-748.

### 2.1.2 Additional Documents

In addition to developing an EVM Policy and EVMS documentation, additional documents are recommended to address post acceptance responsibilities: an EVMS Surveillance Plan and an EVM System Revision Procedure.

Since the EVM System Owner is also responsible for the maintenance of the system, the Surveillance Plan should describe how the organization will periodically monitor the compliance of its EVMS with ANSI/EIA-748. The NDIA Surveillance Guide will help in developing and implementing the EVMS Surveillance Plan.

Because modifications to the EVMS may be required from time to time, a System Revision Procedure should be developed to document a formal change process.

## 2.2 Compliance Evaluation Review

Once the processes and procedures have been created, documented, and implemented on at least one contract or project, the CER will verify the following:

- The system, as described, meets the intent of the EVMS Guidelines as described by ANSI/EIA-748
- The system, as described, is fully implemented on the selected contract(s), project(s), or program(s)
- The implementation is successful and complies with the requirements of the system documentation /organization's EVMS procedures and (if appropriate) contract-, project-, or program-unique procedures
- The system implemented provides timely, accurate, and auditable management information for both the EVM System Owner's project management organization and the customer.

The CER process and its results are documented to provide the opportunity to understand the EVMS compliance with the ANSI/EIA-748 to those who did not participate.

The CER is intended to be an independent review that must be conducted by a person(s) or organization(s) that complies with the following:

- Has no vested interest in the EVM system; project, or contract being reviewed; (This criterion does not apply when the EVM System Owner conducts a self evaluation review)
- Is recognized as being knowledgeable and competent in the area of EVM systems implementation or surveillance; (See Appendix A for guidance on CER team member experience and independence)
- Uses the NDIA EVMS Intent Guide to evaluate EVM systems for compliance with ANSI/EIA-748.

The EVM System Owner may choose to complete the CER either by conducting a self valuation review using internal resources, hiring an independent party, or engaging the customer to jointly establish the evaluation team.

A CER report will be prepared by the Compliance Evaluation Team. This report is an iterative document resulting from a process that allows the Compliance Evaluation Team to consider the EVM System Owner's responses to any of their findings prior to finalizing the CER report and providing it to the applicable Acceptance Authority.

### **2.3 System Acceptance**

For the customer and the EVM System Owner, the release of a document that recognizes acceptance of an EVMS is the culmination of the process that began with the issuance of an acquisition requirement containing the EVM clauses. For Government customers, this acceptance, as defined by the FAR clause, is effected by the contracting officer for the customer. For commercial customers, a designated company or corporate representative will provide the appropriate acceptance recognition document. If an Advance Agreement (AA) is subsequently issued, it is normally signed by senior representatives of the EVM System Owner and the customer.

Cross-agency acceptance is best accomplished through the establishment of reciprocal agreements between agencies and organizations to mutually recognize EVM System ANSI/EIA-748 compliant acceptance or recognition documents. An alternative acceptance method requires the cross-agency to accept the other agency's EVMS acceptance with an extensive surveillance based on the standards described in the NDIA Surveillance Guide. Another alternative is for the cross-agency to review the documentation from the EVM System Owner's compliance evaluation review.

### **3 SYSTEM DESIGN AND IMPLEMENTATION**

The primary purpose of for implementation of an Earned Value Management System is to support program management with a process that provides a reliable basis for assessing performance, identifying issues, initiating corrective action, and making management decisions. Thus, EVM isn't simply a metric or a report, but is comprised of a number of management processes that form an integrated program management capability. To be effective, EVM Systems must meet an organization's needs and reflect good business practices. Therefore, the establishment of an EVMS requires a structured process.

There is no single correct process for establishing an EVMS, but it typically involves the following efforts, discussed further in this section:

- Organizational commitment to using EVM
- Assessment of where changes/enhancements to processes are needed to comply with the EVMS Guidelines described by the ANSI/EIA-748
- Design for the EVMS processes
- Documented EVMS capability
- Structured training program
- Formal recognition that the EVMS meets the intent of ANSI/EIA-748.

#### **3.1 Policy Preparation and Approval**

The EVM System belongs to and is governed by the EVM System Owner. Establishment of an EVM policy by senior management is not mandatory, but is highly encouraged. It facilitates the commitment of resources to design, implement, and maintain an EVMS that meets the intent of ANSI/EIA-748. At a minimum, a policy statement should include the following items:

- Statement of commitment to the operation and maintenance of the EVMS
- Reference to policies and standards, i.e., ANSI/EIA-748
- Definition of the type of programs, contracts and projects that will use EVM
- Assignment of responsibility for the operation and maintenance of the EVMS
- Definition of program management responsibilities for implementing and using EVM
- Assignment of responsibilities to support organization
- Requirement to conduct internal surveillance on the EVMS.

#### **3.2 System Documentation and Procedures**

The guidelines contained in ANSI/EIA-748 are high-level and goal-oriented. They state the qualities and operational considerations of an integrated management system using

EVM methods without mandating detailed system characteristics. These guidelines also enable implementation on large or small programs, projects, or contracts.

EVM System Owners have sufficient flexibility within the Guidelines to implement EVM in a manner that employs the most effective and efficient performance management methods and techniques.

In developing the system documentation and procedures, an EVM System Owner may use any of the methodologies delineated in paragraph 2.1.1.

Before developing these documents, specific system design solutions should be formulated to address any “gaps” between current practices and the requirements of ANSI/EIA-748. One method for identifying gaps is to conduct an assessment of current processes and practices related to each of the 32 EVMS Guidelines.

Use of the NDIA EVMS Intent Guide is recommended to assure the System Owner that the EVMS conforms to the ANSI/EIA-748. Prior to receiving system acceptance, an organizational entity should prepare a compliance map documenting how its business processes conform to the Guidelines to satisfy a proposal requirement that its system meets the intent of ANSI/EIA-748. This compliance map should be prepared using the NDIA EVMS Intent Guide Appendix A, Process Description Compliance Map Template.

A compliance map provides several benefits to the system design and implementation process. It can identify any process or procedure gaps that will require closure to achieve conformance with the EVMS Guidelines. Aligning EVM System processes and procedures with the applicable Guidelines may also identify duplicate documentation that, when eliminated, typically results in process streamlining. When the design and documentation efforts are completed, those persons engaged in implementing and maintaining the EVMS normally have a better understanding because it reflects how the organization intends to do business. This, in turn, can reduce the training requirements.

### **3.3 Implementation and Review**

Early in the system design and documentation activity, senior management should select at least one program for EVM System implementation. The EVMS for this program will be the subject of the Compliance Evaluation Review. Selection of the program for EVM System implementation includes the following considerations:

- A program with a contractual or Government requirement to use an EVMS that is compliant with ANSI/EIA-748
- A diversified business base upon which the EVMS will be implemented:
  - Development, modernization, enhancement
  - Hardware production
  - Software design and delivery
  - Support and services
  - Multiple performing organizations (contractors, subcontractors, and Government organizations)

- The number of locations at which the EVMS will operate.

Implementation of the EVMS occurs after the system design and documentation has been completed. Additionally, as the processes are implemented, feedback on the effectiveness and accuracy of system documentation and procedures is important to ensure that needed improvements are incorporated in a timely manner.

When the EVMS design uses “as is” or modified existing business processes and procedures, implementation can be more efficient because the processes are largely consistent with those already in use. However where the EVMS results from new process and procedure definition and documentation; the implementation may require more training. Implementation may also identify the need to modify new processes and procedures because issues weren’t recognized until the design concepts were actually implemented.

Once the project selected for compliance evaluation has implemented the EVM process, the system evaluation process begins. The EVM System Owner may elect to conduct or may have conducted a simulation of the EVMS Compliance Evaluation Review, referred to as a Progress Assessment Review (PAR). The PAR affords an opportunity for the EVM System Owner to identify and address any shortfalls in the design and/or implementation prior to the actual Compliance Evaluation Review. Alternatively, the System Owner may elect to proceed directly to the Compliance Evaluation Review as described in Section 4.0 of this document.

### **3.4 EVM and System Training**

In conjunction with design and implementation, training in both the basic concepts of EVM and the System Owner’s processes and procedures are critical to achieving system acceptance. EVM basic training focuses on the concepts embodied by the EVMS Guidelines and the associated processes.

In addition to EVM basic training, specific EVMS training should address the specific process elements of the system that is being designed and implemented by the EVM System Owner. This includes unique project management aspects of the system, forms designed for implementation, and process-oriented interfaces with other internal systems.

Training should begin as early as possible during system implementation. As system documentation is updated to reflect the feedback from implementation, system training should also be modified to reflect the documentation updates.

#### **4 EVM SYSTEM COMPLIANCE EVALUATION REVIEW**

The Compliance Evaluation Review (CER) is conducted following the design and implementation of the EVMS to verify that the system being reviewed meets the intent of ANSI/EIA-748. The specific purposes of the EVM System CER are listed below:

- Ensure that senior management actively participates and accepts ownership of the EVM process
- Verify that the EVM system processes, procedures, systems, and practices comply with ANSI/EIA-748
- Demonstrate the use of the EVMS by the EVM System Owner's project management workforce
- Ensure that the data and reports produced by the EVM system are reliable and capable of being used for planning, risk mitigation, and corrective actions, and for forecasting schedule and cost outcomes
- Verify that the EVM system produces performance data consistent with the program technical, schedule, and cost status.

The CER may occur prior to program approval or contract authority to proceed or may occur after these events. When the CER occurs prior to a project approval or contract authority to proceed, a viable alternative process is to complete the Intent Guide Templates mapping the EVMS compliance with ANSI/EIA-748. It would then be reviewed and recognized as compliant with ANSI/EIA-748 by the organization requiring compliance. Implementation of the approved, compliant EVMS is verified and accepted by the contract or project customer through the ANSI/EIA-748 EVMS guideline joint surveillance process defined in the NDIA Surveillance Guide. The organization requiring compliance would issue a formal acceptance of the process at the conclusion of the joint surveillance.

NDIA Guides supporting ANSI/EIA-748 application are identified with the applicable acquisition life cycle for the Acceptance Authority and the EVM System Owner organizations in Figure 4.1.

Acquisition Life Cycle	Acceptance Authority or Customer	EVM System Owner or Supplier
Pre-System Acquisition Approval or Award	Recognize: <i>Application Guide</i> <i>System Acceptance Guide</i>	Document and Assessment: <i>Application Guide</i> <i>Intent Guide</i>
Systems Acquisition Approval or Award	Accept: <i>Intent Guide</i> <i>Surveillance Guide</i>	Implement: <i>Intent Guide</i> <i>Surveillance Guide</i>
	IBR Review: <i>IBR Guide</i>	IBR Review: <i>IBR Guide</i>
	Surveillance: <i>Surveillance Guide</i>	Execution and Surveillance: <i>Surveillance Guide</i>

**Figure 4.1 - NDIA Guide Applicability**

There are numerous options concerning who conducts the EVM System CER:

- The Acceptance Authority
- The Customer
- The EVM System Owner using in-house resources
- The EVM System Owner using a combination of in-house, Customer, Acceptance Authority, and Independent Subject Matter Experts
- Independent Subject Matter Experts.

The EVM System Owner may choose to conduct a Self-Assessment Review and/or a Progress Assessment Review (PAR) to prepare for the CER. These reviews (described below) provide an opportunity for the EVM System Owner to assess overall readiness for the CER and to increase the probability of success.

#### **4.1 EVM System Compliance Evaluation Review Schedule**

It is important to establish a schedule of activities that will be required to proceed from system design to completion of the CER. The CER may be conducted serially, concurrently, or in combination with system design to reduce the cost of obtaining acceptance. The review schedule for the CER needs to provide adequate time for an efficient review and assessment. While the CER review and assessment phases are not strictly defined, a notional high-level process as is illustrated in Figure 2.1 should be followed by the CER Team.

While sufficient time for each of the required activities should be included in the schedule, every effort should be made to complete the process quickly. When incorporating the activities described in the schedule below as appropriate, there may be some overlap, depending on the maturity of the organization. Coordination of the schedule with all participants will assist in “buy-in” by the CER Team, the EVM System Owner, and the Acceptance Authority. Figure 4.2 is a nominal schedule for completing the CER. The overall timeline will change based on the situational decisions of the EVM System Owner.

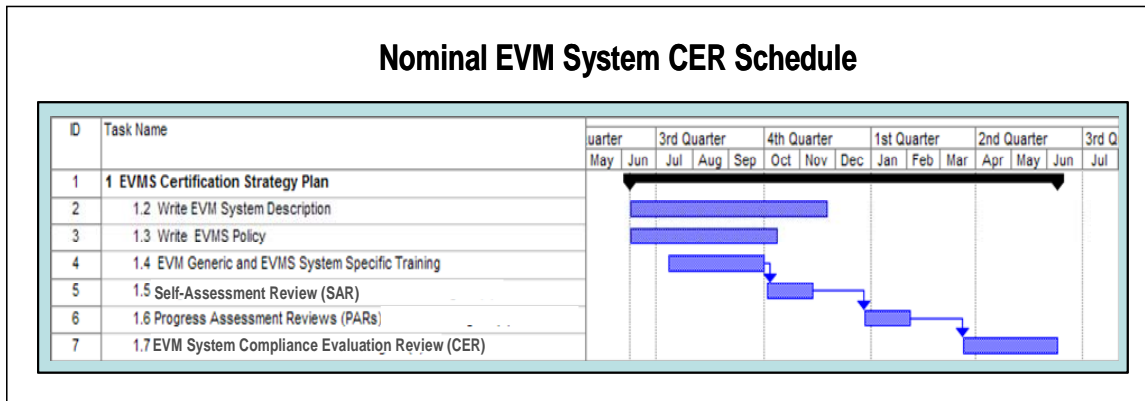


Figure 4.2 - Sample CER Schedule

The Self-Assessment Reviews and PARs, if scheduled, are normally conducted after the EVM system has been implemented as depicted in Figure 4.3

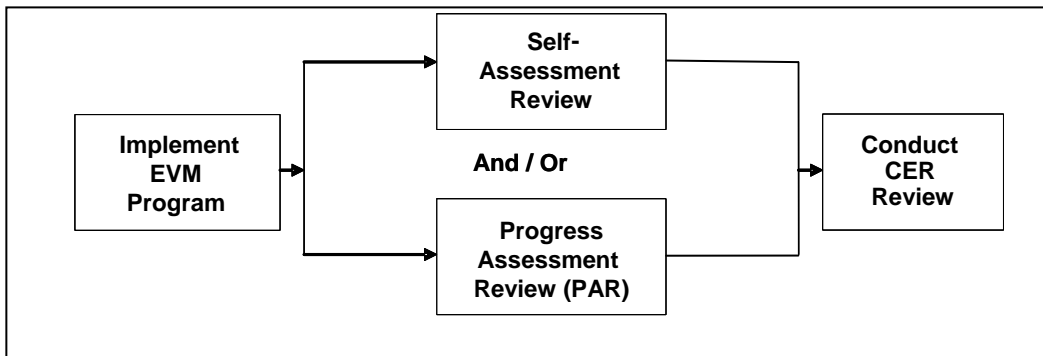


Figure 4.3 - Review Cycles

## 4.2 EVM System Owner Self-Assessment Review

The Self Assessment Review has three primary objectives:

- Assess compliance with ANSI/EIA-748 and identify areas of non-compliance and/or areas to improve, often referred to as a “Gap Analysis.” The Self-Assessment Review may include Control Account Manager (CAM) discussions to assess progress of the EVM system implementation
- Develop a plan to prepare the program/contract team to conduct a CER

- Develop a plan and schedule for future reviews, including proposed dates for the CER.

The EVMS Owner must ensure that the program has implemented corrective actions to comply with the ANSI/EIA-748. The completed corrective actions plus the documenting of compliance with ANSI/EIA-748 in the formal CER format satisfies the completion of the CER process.

### **4.3 Progress Assessment Review**

The Progress Assessment Review (PAR) is optional at the discretion of the EVM System Owner. The PAR is usually conducted by a contingent of the CER Team in preparation for the EVM System CER. The purpose of the PAR is to review progress toward implementing the EVMS, to resolve misunderstandings, and to assess the project's readiness to demonstrate a fully-integrated, earned value management system. The PAR helps to prepare for the CER by familiarizing key team members with the fundamentals of the EVMS. The PAR is usually conducted by a small team that can provide the EVM System Owner with a readiness assessment for the CER and may include CAM discussions to assess the EVMS implementation. The PAR team does not institute changes to the EVMS, but provides sufficient information for the EVM System Owner to understand non-compliance issues and to implement corrective actions necessary to meet the intent of ANSI/EIA-748. This review is an opportunity for the EVM System Owner to correct potential non-compliance issues prior to conducting the CER.

### **4.4 Compliance Evaluation Team Membership Selection and Training**

CER team members should possess the experience and independence identified in the Compliance Evaluation Reviews Team Selection Guidelines, Appendix A. Statements of experience and independence should be included in team member resumes as part of the CER Report. The CER team lead assigns responsibilities to the team members based on the five categories defined in ANSI/EIA-748: Organization, Planning, Scheduling and Budgeting, Accounting Considerations, Analysis and Data Reporting, and Revisions and Data Management.

- CER team members should be independent, should not be advocates of the EVM System Owner, and should not have participated in the design and implementation of the system.

Once the CER team has been established, training is conducted. Team members must meet stringent qualifications, with training requirements varying based on their experience with conducting CERs. A training program should include the process for evaluating EVMS compliance with the Guidelines and the effectiveness of its implementation. This process includes the approach to conducting the review, discussion concepts, documentation requirements, and the forms and formats to be used during the course of the review.

Appendix C, Review Execution Considerations, is provided to encourage a well conducted review resulting in a supportable final report that is acknowledged to be valid by all the participants in the review.

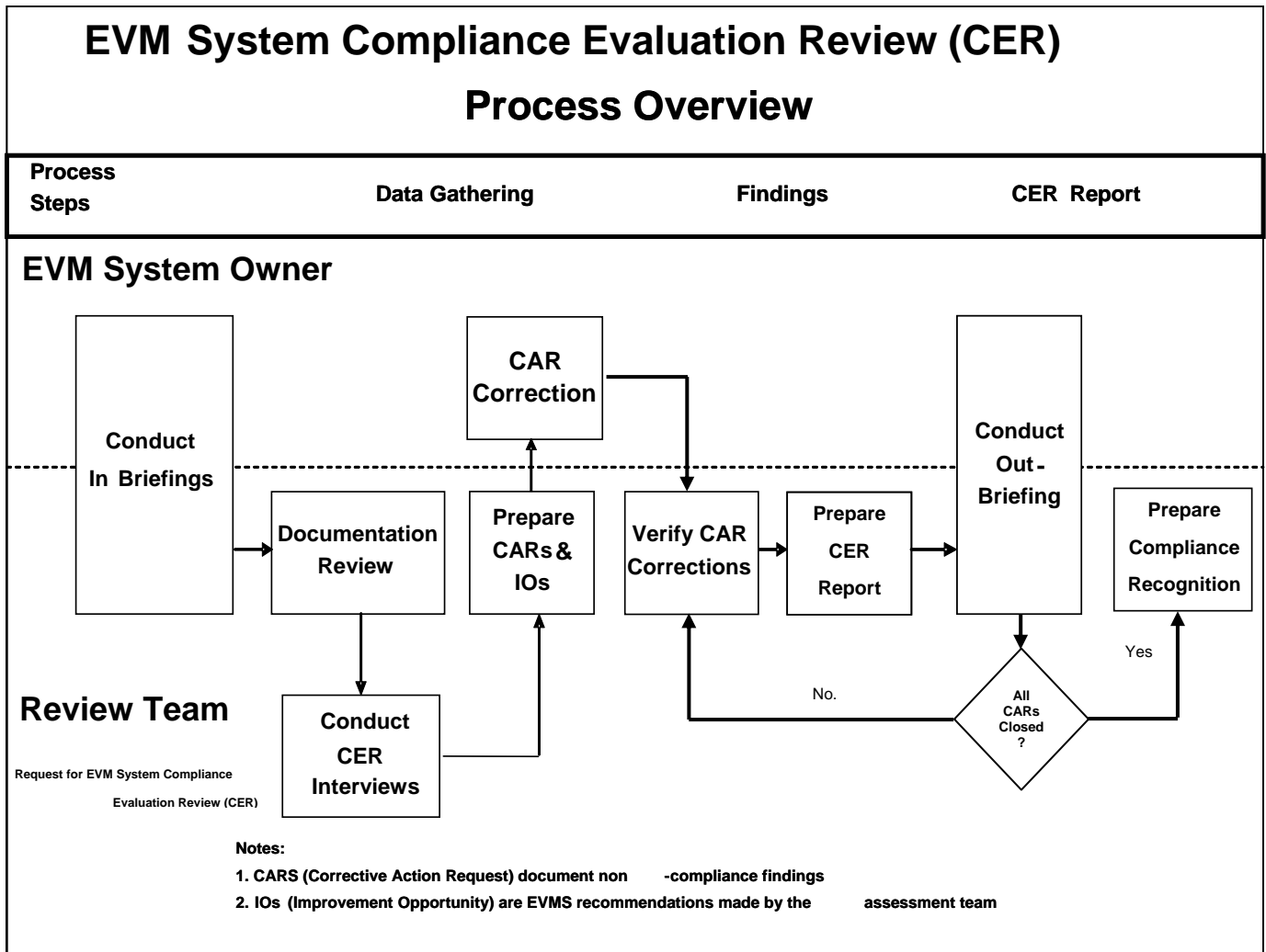


Figure 4.4 - Overview of the CER Process

### 4.5 EVM System Compliance Evaluation Review (CER)

The purpose of the EVMS CER is to determine if the implementation of a documented EVMS is compliant with ANSI/EIA-748. An overview of the CER process is illustrated above in Figure 4.4.

The CER team will review the EVM System Owner's working papers and documents to ascertain compliance with the Guidelines and to document its findings. The EVM System Owner will make available to the CER team the documents used in the implementation. Appendix A of the NDIA EVMS Intent Guide provides examples of the types of documentation that can be reviewed. The team should verify that the

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documentation is current and accurate. The EVM System Owner will demonstrate to the team how the EVMS is structured and used in actual operation.

The following activities will be performed to the extent necessary during the CER:

- (1) An overview briefing by the EVM System Owner will familiarize the CER team with the implemented EVMS, identifying any changes that have occurred since the most recent Self-Assessment Review and PAR(s) (if conducted).
- (2) An overview briefing by the CER Team Lead will discuss the goals and objectives of the review and how the review will be conducted, and the CER Team members will be introduced.
- (3) A sample of the documentation that establishes the initial baseline plan for the program will be reviewed, as well as records for subsequent changes to the baseline plan. This will include work authorizations, schedules, budgets, resource plans, and change records (including management reserve and undistributed budget records). The purpose is to verify that the EVM System Owner has established and is maintaining a valid, comprehensive, integrated baseline plan for the contract.
- (4) A sample of the reported cost and schedule performance will be reviewed against the baseline plan, along with documented analyses of problems and a projection of future costs. Also, a trace of the summarization of cost/schedule performance data from the lowest level of formal reporting (normally the control account level) to the level designated for internal management and (if applicable) the external performance measurement reports. The purpose of this activity is to verify the adequacy of system controls and the accuracy of the resulting management information.
- (5) Discussions with a selected sample of members of the project organization, including Control Account Managers, as well as functional representatives or other work teams, and Project Managers will take place. These discussions will verify that the EVMS is fully implemented and is being used to manage the project. The sample data reviewed should be sufficient to verify implementation and compliance with the EVMS. While it may not be necessary to review 100 percent of all documentation and program personnel, a sample that is too small may not provide sufficient visibility into possible system problems. Samples should be selected to focus on the areas of greatest risk. If significant problems are found, the sample size, and, if necessary, the duration of the review, should be extended.
- (6) Findings that require corrective action should be documented as corrective action requests (CARs) with resulting system changes implemented within 60 days. Identified corrective actions require resolution prior to issuance of an acceptance recognizing compliance. The CER review team may also recommend optional process improvement opportunities.
- (7) An exit briefing covering the team's findings will be held. During this briefing, any open system compliance discrepancies should be discussed in regard to the

EVM System Owner's corrective action plan, which should establish responsibility and a timeframe for all required corrective actions.

#### **4.6 Compliance Evaluation Review Report**

At the conclusion of the CER, the team prepares a report documenting the activities of the review, as well as the results. The content of the report will reflect, as completely as possible, how the team verified compliance with the Guidelines and that the described system was properly and effectively implemented on the project or projects under review. Appendix B contains an example format for the CER report. The CER report should be finalized within 60 days of the exit briefing

## **5 SYSTEM COMPLIANCE ACCEPTANCE**

EVMS compliance acceptance represents the formal recognition by a Acceptance Authority that an EVM System Owner's EVMS is compliant with ANSI/EIA-748. This means that the Acceptance Authority has reviewed the EVM System Owner's EVMS CER report and made the following determinations:

- The EVM system complies with the ANSI/EIA-748
- The contract, project, or program is using the conforming EVMS.

The information provided in the CER Report should be evaluated by the Customer for completeness. The EVM System Owner should provide documentation that all corrective actions for compliance issues have been completed before a final decision is made to issue a system compliance recognition document

### **5.1 Initial System Compliance Recognition**

The EVMS compliance recognition is a letter, advance agreement, or other document that clearly indicates that the system reviewed complies with the ANSI/EIA-748. If specific guidelines are not applicable to the program(s) used in the CER, this document should clearly specify which Guidelines are not applicable for compliance based on the type of acquisition involved.

The EVMS Compliance Recognition document can take several forms. The style and content of the document is up to the Acceptance Authority, but it should contain the following minimum information:

- a) Title
- b) EVM System Owner's name and the organization(s) for which the certification is applicable
- c) Title given to the EVMS by the EVM System Owner (PMCS, P23RD2005, etc.) and the date approved
- d) Name and contact information for the person signing the document
- e) Statement of the period for which the EVMS Compliance Recognition document will be effective
- f) Reference to the ANSI/EIA-748
- g) For those EVMS acceptances that have certified only a portion of the Guidelines, an identification of those Guidelines that were not included in the Compliance and the reason(s) why they were not included
- h) Waiver of prior approval for revisions to the EVMS and disclosure of all revisions prior to implementation to the applicable Executive Agent.

The signed EVMS Compliance Recognition document should then be forwarded to the EVM System Owner and all other parties involved in the process.

When the certifying party is a government organization, the EVMS Compliance Recognition document for a contractor or Government organization is usually issued by a Government official, i.e., EVM Focal Point, Acceptance Authority, or a contracting officer or designee. If a Government Advance Agreement is desired in addition to the EVMS System Recognition, the Advance Agreement is normally executed by representatives of both the EVM System Owner and the Government agency. Where the certifying party is a contractor, the EVMS Compliance Recognition document is usually issued by a contractor official, i.e., contracting officer or designee or an EVM Focal Point.

## **5.2 EVM System Owner Responsibilities**

The issuance of the EVMS Compliance Recognition to the EVM System Owner completes the EVM System Owner's activities for the initial system acceptance process. The EVM System Owner is required to maintain the system and implement EVM on additional programs or projects. If the EVM System Owner revises the EVM policy, process, procedures, or practices, the Acceptance Authority issuing System Compliance Recognition should be notified. Continued EVMS compliance is determined through EVMS surveillance.

EVM System Owners should maintain documentation of all reviews, acceptance notification, advance agreements, system description, and other EVMS products to ensure that they adequately demonstrate compliance with ANSI/EIA-748.

For additional contracts with EVM requirements, the EVM System Owner may be asked to furnish (generally with its proposal) the following documentation:

- EVMS System Compliance Recognition and Advance Agreement, (if any)
- Compliance Evaluation Report (CER) if Compliance Recognition has not yet been issued
- EVM System Documentation.

In order to be consistent with EVMS Compliance Recognition documents or Advance Agreements waiving prior approval exists, the EVM System Owner should notify the applicable Acceptance Authority of EVMS revisions and provide updates to the NDIA Intent Guide Compliance Map.

## **5.3 Acceptance Authority Responsibilities**

After acceptance and recognition of an EVM System Owner compliance with ANSI/EIA-748, the Acceptance Authority may engage in EVM surveillance to verify the system is being maintained and used by the System Owner.

As discussed in paragraph 2.3, cross-agency acceptance can be accomplished by several alternative methods. These include cross-agency acceptance, cross-agency acceptance through joint surveillance, or cross-agency review of the prior validation approach and documentation.

## APPENDIX A COMPLIANCE EVALUATION REVIEW TEAM SELECTION GUIDELINES

This statement of qualifications was prepared in cooperation with the Project Management Institute - College of Performance Management, and is intended to serve as a guide only. This statement does not imply endorsement by Project Management Institute, NDIA, or any of their components. This is intended to serve as a standard for voluntary compliance by independent company personnel, independent certifying companies or government agencies. As such, Project Management Institute, NDIA, and their components are not liable for any misapplication, misinterpretation, or any legal action resulting from the application of this voluntary standard from any affected parties. It is used with joint permission of PMI-CPM and NDIA-PMSC.

The CER team consists of experienced individuals who are fully conversant with EVMS and the processes being reviewed. The team leader is appointed by the EVMS organization responsible for conducting the CER. To ensure independence, team members must not be individuals assigned to the contract under review or functioning in the direct line of contract or project supervision. At a minimum, CER teams must include the company/site EVM System Owner representatives who meet the attributes described below. Observers may be included from the contract or project under review to facilitate communication and aid early problem resolution.

A CER team needs to include participants with experience, independence, and key general attributes defined below.

- Members need to be independent of the management chain of the contract or project organization. This ensures that findings will be objective.
- Team members must possess multiple-discipline knowledge and experience. This is crucial to understanding the dynamics of effective implementation. It also enables the team develop a comprehensive perspective of the overall process and recommend successful practices.
- Members need to have practical experience using an EVMS.
- Strong team-work skills are required.

Specific guidelines for the CER team and individual members include the following:

- Team Lead
  - Understanding of the development and design of an EVMS
  - A minimum of 15 years of experience in applying and using ANSI/EIA-748 or the predecessor EVMS criteria. This criterion may be supplemented by extensive EVM surveillance experience at multiple sites and with multiple customers.
  - Experience using assessment techniques and documents (i.e., examining, questioning, evaluating, and reporting).
  - Knowledge and understanding of the review process to meet compliance.
  - Previously experience as a member of EVM compliance evaluation reviews

- Team Member
  - Knowledge and understanding of ANSI/EIA-748
  - A minimum of 10 years of EVM experience and 3 years of EVM implementation and use.
  - Knowledge of assessment techniques (i.e., examining, questioning, evaluating, and reporting). This criterion may be supplemented by extensive EVM surveillance at multiple sites and with multiple customers.

When a joint CER is conducted, the customers (independent of the contract or project) should be members of the team. It is recommended that agreement on roles and responsibilities be reached with the customer prior to executing the CER.

## **APPENDIX B**

### **EXAMPLE CER REPORT OUTLINE**

#### **Executive Summary:**

Summarize the review results and provide an overview of the CER process.

#### **Introduction:**

Summarize the EVM System Owner implementation. Topics include the following:

- EVM policies
- Program(s) using EVM
- Customer EVM requirements
- CER methodology
- CER team

#### **Purpose:**

Describe the purpose of the report.

#### **Team formulation:**

Summarize how the CER team was formed and why it is qualified to conduct the CER. Team resumes should be included in this section.

#### **Findings:**

Include the key CER team findings of compliance, strengths, and improvement opportunities. This section should address (a) how the system description satisfies the intent of the Guidelines; (b) how the system is implemented on the program(s), and (c) how the team verified the accuracy of the implementation on the program(s).

Findings should include actions that are required prior to obtaining certification of compliance. The CAR reports and disposition should be included in the CER report. This section should also include a list of all CARs (including the closure verification) and Improvement Opportunities (IOs).

#### **Conclusions:**

Provide the CER team's overall assessment and recommendation of compliance. This section also includes open actions.

#### **Exhibits and Appendixes:**

Provide documentation and examples used in support of both the findings and the conclusions.

## APPENDIX C REVIEW EXECUTION CONSIDERATIONS

### OVERVIEW

Reviews are structured to facilitate the exchange of information about the EVM system compliance expectations and the EVM System Owner implementation. These reviews are structured to identify compliance or non-compliance with the ANSI/EIA-748 guidelines. Open and honest communication is facilitated by the following:

- Code of conduct demonstrating respect for the EVM System Owner team
- Out-briefing and discussion of potential findings before a report is generated

### CODE OF CONDUCT CONSIDERATIONS

The following suggestions are provided to encourage the review team to conduct a respectful review:

- The program in-briefing or orientation introduces team members and fosters understanding of review expectations, agenda, schedule, and process;
- The review team lead provides advanced notification of the review agenda and request for documentation.
- Documentation reviews are conducted prior to arriving at the EVM System Owner facility in an effort to minimize the amount of time spent at the facility.
- The review process and expectations are described, and the EVM System Owner has an opportunity to comprehend and respond.
- The review is conducted in a professional manner and in the spirit of constructive assessment and discovery.
- If there are proprietary data issues of limited disclosure, the team may request assistance from outside independent auditors to verify indirect, accounting, and material systems.

The EVM System Owner can contribute to a well conducted review. Following are suggestions for the EVM Systems Owner:

- Coordinate with the review team leader to ensure that program personnel required for the review meet the selection guidelines and are available to participate.
- Ensure documentation and policies are available to the review team sufficiently in advance of the review to allow for meaningful analysis.
- Respond to corrective action requests as quickly as possible.
- Provide explanations and illustrations in the context of demonstrating compliance with the ANSI/EIA-748.

- Provide information that is used by the EVM System Owner in the normal course of business and avoid providing exhibits created solely for the purpose of the review.

## **OUT BRIEFING AND DISCUSSION CONSIDERATIONS**

During the review, pertinent issues, concerns, and findings will be discovered by the review team. During the period of review and leading up to the final report and out briefing, clear communications and avoidance of miscommunication can contribute to a well conducted review. Suggestions for maintaining good communications and a meaningful out-briefing include the following:

- EVM System Owner personnel should seek clarification to fully understand questions and data requests.
- In order to avoid conflicting assessments, the review team leader is solely responsible for the final disposition of findings and concerns.
- The review team should discuss issues and concerns prior to documenting a finding.