

EVMS Training Snippet Library:

DOE EVMS Certification



Office of Acquisition and Project Management (OAPM) MA-60
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What is an Earned Value Management System?



- An **integrated** set of
 - Documented Management **Processes**
 - Management Information **Systems**
 - **Culture** (People – Roles / Responsibilities)
- Provides reliable and accurate project and program **information**
- Used to support project management as a **decision making tool** and a critical component of risk management

Types of EVMS Reviews



- **Pre-Certification**
 - Certification Review
- **Post Certification**
 - Surveillance
 - Implementation
 - Review for Cause





- **American National Standards Institute / Electronic Industries Alliance (ANSI/EIA) 748 standard consists of 32 guidelines**
- **Contractually required**
 - Department of Energy (DOE) Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, 11/29/2010
 - Use of EVMS compliant with ANSI/EIA-748 required prior to CD-2
 - Certification as compliant required prior to CD-3
 - EVMS not required for firm fixed-price contracts
 - FAR clause 52.234-4, *Earned Value Management System*



- **Intent of the EVMS Certification process is to:**
 - Ensure deployment of an EVMS *compliant* with ANSI/EIA-748 across applicable DOE Order 413.3B capital asset projects
 - Ensure *implementation* of the EVMS in an ANSI compliant manner to monitor and manage cost, schedule, and technical performance across their entity
 - Assess *maintenance* and continued implementation
 - Provide a documented and defensible *record* for both DOE and the Contractor in support of any future Government Agency assessment of their EVMS or Order 413.3B compliance

Certification of EVMS compliance will not occur until full completion of the review process



- **Certifying Authority and Total Project Cost (TPC) Thresholds:**
 - OAPM \geq \$100M;
 - Project Management Support Office (PMSO) \geq \$50M < \$100M;
 - Contractor self-certification \geq \$20M < \$50M
 - Major System Project, i.e. \geq \$750M
 - Prior to CD-3 OAPM will conduct surveillance to validate continued compliance if self-certified or PMSO-certified



- **Conducted for two reasons:**
 - To assess readiness for a Government-led Certification, or
 - Total Project Cost is \$20M to \$50M and the contractor is not already certified
 - FPD responsible to ensure the self-certification is conducted
 - FPD oversight of the self-certification engenders confidence in the contractor's processes
- **Self-Certification team composition:**
 - Independent from the project, i.e. internal controls, peer group, third party
- **FPD provide a copy of final report to CO, PMSO and OAPM**

Key POCs and Responsibilities



- **DOE Certifying Authority should —**
 - Serve as primary certification POC
 - Develop the EVMS certification review schedule milestones
 - Assemble, coordinate, and lead the review team
 - Ensure clear and transparent communication between all stakeholder POCs
- **Contractor POC should —**
 - Typically the manager or another member of the project controls department responsible for implementing and maintaining contractor's EVMS

Certification Scope/Assumptions



- **Scope**

- EVM System description and supporting procedures
- Implementation
- Tool demonstration and review

- **Review Team**

- Led by DOE employees
- Assisted by contract support personnel

- **Review Process**

- Length of process dependent on contractor readiness and willingness to address identified issues; may take up to 18 months (or longer)
- One to two day Initial Visit
- Pre-Review Assessment to include contractor self-assessment and OAPM data analysis
- One to two weeks on site for compliance review
- Corrective action phase
- One week or less on site for follow up to verify implementation of corrective actions

DOE Certification Process



Initial Visit	<ul style="list-style-type: none">• On-site meeting• "Level-set" expectations• Assess readiness to proceed
Pre-Review Assessment	<ul style="list-style-type: none">• Contractor self-assessments and OAPM data analysis• Assess policy/procedures, i.e. System Description• Review and analyze available data
On-Site EVMS Review	<ul style="list-style-type: none">• CAM and Managerial Interviews• Conduct Data Traces
Follow Up Review	<ul style="list-style-type: none">• Review CAP Evidence Submittal• Assess CAP Implementation
Certification	<ul style="list-style-type: none">• Final Report• Certification Letter from Contracting Officer
Surveillance	<ul style="list-style-type: none">• Follows Certification• Contractor conducts annual surveillance• Certifying Authority conducts on-going, data driven, risk based surveillance (OAPM SOP)



Initial Visit

- On-site meeting
- "Level-set" expectations
- Assess readiness to proceed

- The certification process can begin as soon as contractor implements use of EVMS
- Face to face meeting between DOE EVMS POC and Contractor
- Assess readiness for the next phase of the review and to level-set expectations in terms of purpose, scope, process



Pre-Review Assessment

- Contractor self-assessments and OAPM data analysis
- Assess policy/procedures, i.e. System Description
- Review and analyze available data

- **Data Call, including items such as:**

- EVM System Description and support procedures
- Contract or Project-level Work Breakdown Structure and Dictionary
- Cost /schedule data with time-phased budgets by month by element of cost from native tools at lowest level that corresponds to contract / project (e.g., X12)
- Baseline/Forecast Schedules in native format (e.g., XER)

- **Team reviews and analyzes data**

- Reviews system procedures against ANSI/EIA-748 guidelines, NDIA Intent Guide, Scheduling Guides, etc.
- Conducts data traces to assess integration of data between systems
- Analyze data to assess compliance

On-Site EVMS Review

- CAM and Managerial Interviews
- Conduct Data Traces

- **Expectations:**

- Team

- Arrives on time
 - Well prepared
 - Professional

- Contractor

- Safety/security
 - Facilities
 - Responsive
 - Available



MUTUAL TRUST AND RESPECT

Typical On Site Review Format



- **Welcome/Introductions/Safety**
- **In Brief by Government Review Director**
- **Contractor Presents:**
 - Brief Overview
 - Scheduling and Cost Engines Demonstration
 - Process flow via EVMS Storyboard
- **Interviews Conducted**
 - Control Account Managers (CAMs)
 - Project Controls
 - Contractor Management
 - Government Federal Project Director and CO
- **Final Out Brief by Government Review Director**

What to Expect During Interviews



- Contractor Management, Project Controls, and Control Account Managers are interviewed as well as some DOE Site Personnel
- CAM interviews will be conducted where the CAM has **access to the cost and schedule tools** used to manage the control account(s)
- Interviewees must be able to **show, prove, demonstrate** that they are using the system to manage their projects
- Interviewers will **drill down, trace, analyze** to make sure the data is accurate
- The team will **conduct a critical assessment** of the tools, procedures and processes, and how they are used to manage the work

Documenting Findings and Recommendations



- **Corrective Action Request (CAR):**
 - A CAR is a systemic or limited occurrence of an ANSI/EIA 748 non-compliance or a significant impact to reporting
 - A CAR requires a Corrective Action Plan (CAP), approval, and closeout
- **Continuous Improvement Opportunity (CIO):**
 - A CIO is a recommended improvement or expansion of good practices for wider application
 - CIOs do not require implementation or response; dialog is encouraged

Expectations at End of Review



- **The Review Director will conduct an Out brief**
 - Corrective Action Requests (CARs) are typically not provided at this point
 - Provided upon return to the office for factual accuracy review
- **Discussion of Path Forward**
 - Corrective Action Plan prepared to address all CARs
 - Corrective Action Plan submitted to Review Director for comment and approval
 - Review Director conducts periodic conference calls/visits with contractor POC to discuss and assess progress against CAP
 - Follow Up review scheduled to verify implementation of CAP

- **CAP approval criteria**

- Thoroughness of root cause analysis; need for formal causal analysis
- Adequacy of corrective action to prevent recurrence
- Review for repeat non-compliances; assessment of metrics
- Verify guideline compliance
- Closure criteria, e.g. clear activities required to be successfully accomplished before the CAR can be closed out
- The surveillance team documents the status of these activities and is responsible for ensuring that the statuses of activities are documented

- **CAP / CAR verification and closure**

- Verification of completion of CAP activities may include any or all of the following:
 - Review evidence packages
 - Conduct additional CAM interviews
 - Data sampling and analysis



- **EVMS Review reports are issued to document the review actions.**
- **Contents:**
 - Executive Summary Scope of Review
 - Health of the EVMS
 - Assessment and Findings
 - System deficiencies identified
 - Best Practices Identified
 - Conclusion
 - Attachments include CARs and CIOs



Follow Up Review	<ul style="list-style-type: none">• Review CAP Evidence Submittal• Assess CAP Implementation
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- Purpose is to validate that corrective actions have been implemented and assimilated into the culture
- Typically one to three days on site if needed
- Review of evidence packages
- Interviews
- CAR closure



Certification

- **Final Report**
- **Certification Letter from Contracting Officer**

- **All Corrective Actions for the issued CARs have been reviewed, verified as complete, and closed**
- **Final Report documenting closeout is issued via memorandum to the CO; copies to internal stakeholders**
- **The Certifying Authority will determine if contractor system can be certified as compliant**
- **CO will issue formal notification to the contractor**
 - Letter of EVMS Certification
 - Surveillance requirements as specified in DOE O 413.3B
 - Procedural configuration management requirements

EVMS Changes After Certification



- **Contractor-proposed EVMS changes require DOE approval prior to implementation per FAR 52.234-4(e) which is incorporated by DOE Order 413.3B, Attach 1**
- **DOE advises the Contractor of the acceptability of such changes within 30 calendar days after receipt of the notice of proposed changes from the Contractor**
 - The DOE Certifying Authority reviews the proposed changes against ANSI/EIA-748B (or as defined by contract) to determine compliance
 - If so, the changes are recommended for approval to the CO
 - The implementation verification would be annotated as a possible area of risk, and confirmed based on surveillance activities
 - If the proposed EVMS changes are not considered compliant, the DOE Certifying Authority works with the Contractor to reach agreement. If agreement is not reached, then the CO sends a letter of non-consent



Corporate Certifications and-Other Issues



- **Corporate Certification**

- Allows a contractor to adopt their existing certified EVMS for application under a new contract at another location
- Contractor will be considered certified upon acceptance of prior certification documentation
- DOE must conduct surveillance prior to CD-3

- **Other Certification Issues Handled on Case Basis**

- One or more EVMS certified contractors form LLC and adopt an existing certified EVMS
- New contractor adopts incumbent contractor's certified EVMS
- DOE will conduct either Certification or Implementation review before granting certification of compliance



Surveillance

- Follows Certification
- Contractor conducts annual surveillance
- Certifying Authority conducts on-going, data driven, risk based surveillance (OAPM SOP)

- **Contractor has primary responsibility**

- Establish Comprehensive Surveillance Plan

- All 32 guidelines annually
 - Clear definition of scope, responsibilities, methods, and schedule
 - Ideally conducted under purview of a separate organization from Project Manager and EVMS Manager's line management

- Distribution of Annual Report to DOE

- Federal Project Director
 - Contracting Officer
 - PMSO
 - OAPM

DOE OAPM EVM Home Page



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EARNED VALUE MANAGEMENT

Aviation Management
Executive
Correspondence
Energy Reduction at HQ
Facilities and Infrastructure
Freedom of Information Act
Financial Assistance
Information Systems
Procurement and Acquisition
Project Management
Earned Value
Lessons Learned
Reviews and Validations
Documents and Publications
RCA and CAP

Earned Value Management (EVM) is a systematic approach to the integration and measurement of cost, schedule, and technical (scope) accomplishments on a project or task. It provides both the government and contractors the ability to examine detailed schedule information, critical program and technical milestones, and cost data.

- [EVMS Surveillance Standard Operating Procedure \(ESSOP\)](#) - 26 Sep 2011 (pdf)
 - [EV Guideline Assessment Templates](#) - (MS Word)
 - [DOE EVMS Cross Reference Checklist](#) - (pdf)
 - [DOE EVMS Risk Assessment Matrix](#) - (MS Word)
- [Formulas and Terminology "Gold Card"](#) - Sep 2011 (pdf)
- [Slides from the OECM Road Show: Earned Value \(EV\) Analysis and Project Assessment & Reporting System \(PARS II\)](#) - May 2012 (pdf)
- [DOE EVM Guidance](#)

EVM TUTORIALS

[Module 1 - Introduction to Earned Value](#) (pdf 446.86 kb) July 17, 2003

This module is the introduction to a series of online tutorials designed to enhance your understanding of Earned Value Management. This module's objective is to introduce you to Earned Value and outline the blueprint for the succeeding modules. This module defines Earned Value management. It looks at the differences between Traditional management and Earned Value management, examines how Earned Value management fits into a program and project environment, and defines the framework necessary for proper Earned Value management implementation.

<http://energy.gov/management/office-management/operational-management/project-management/earned-value-management>