

Earned Value Management System (EVMS)

Surveillance

Standard Operating Procedure

(ESSOP)

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**DEPARTMENT OF ENERGY
Office of Acquisition and Project Management (OAPM)**

**Earned Value Management System (EVMS) Surveillance Standard Operating Procedure
(ESSOP)**

OPR: MA-63**Update V2: September 30, 2013**

- 1. PURPOSE.** This EVMS Surveillance Standard Operating Procedure (ESSOP) serves as a primary reference for OAPM MA-63 when conducting EVM System-level assessments. DOE Order (O) 413.3B, the Office of Management and Budget (OMB) Circular A-11, and the Federal Acquisition Regulations (FAR) require implementation of an EVMS on DOE capital asset projects greater than \$20M. The intent of this SOP is to provide processes based upon a common understanding of EVMS Industry and Government best practices for use by the Department of Energy (DOE) oversight, program, and project teams, as well as contractors doing business with DOE. Surveillance activities cover the areas of surveillance objectives, suggested processes, roles, and responsibilities. All information contained herein provides detailed processes to implement the requirements in DOE O 413.3B.
- 2. APPLICABILITY.** This SOP applies to OAPM MA-63 and is available for use outside MA-63.
- 3. RELEASABILITY – UNLIMITED.** This SOP is approved for public release.
- 4. EFFECTIVE DATE.** This SOP is effective immediately.

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1. INTRODUCTION

In its simplest form, Earned Value Management (EVM) is the discipline of successful project management. It is the planning and controlling of authorized work to achieve cost, schedule, and technical performance objectives. Special emphasis is placed on efficiency and effectiveness in the execution of work through the development and operation of an EVMS that integrates the application of people, systematic processes, and innovative tools and techniques. EVM helps project managers and their management teams operate more effectively in the execution of risky, high dollar, and complex projects.

Successful project management requires well-qualified and highly skilled project managers along with integrated teams backed by management systems that provide immediate access to reliable and accurate data on project costs, schedule, and technical performance. Project managers and their management teams perform best when they are well informed.

The surveillance of a contractor's EVMS is intended to provide all stakeholders, including the Acquisition Executive (AE) and senior leadership within the DOE, as well as Congress with confidence that the EVMS produces reliable, accurate, and timely information that is used to effectively manage cost, schedule, and technical performance and in making informed decisions.

The purpose of performing surveillance of a contractor's certified EVMS is four fold:

- (1) Verify the EVM data is useful, timely, and effective
- (2) Assess whether the data is used to make informed decisions
- (3) Ensure company processes are being followed
- (4) Demonstrate continued compliance to the ANSI/EIA-748 (current version) guidelines

Templates are available for formats referenced in this SOP. The templates include instructions when necessary to assist the user in the application. Appendix B contains a list of templates as of time of publication of this SOP. A current list is maintained on the OAPM EVMS website.

2. DOE ORDER 413.3B EVMS SURVEILLANCE REQUIREMENTS

DOE Order 413.3B, *Project Management for the Acquisition of Capital Assets*, requires EVMS surveillance as follows:

- Annual surveillance conducted by the contractor with documentation provided to the DOE contracting officer, Project Management Support Office (PMSO), and OAPM.
- During the tenure of a multi-year contract (at the contract midpoint or every 2 years, during contract extensions, or as requested by the AE), surveillance will be accomplished by the PMSO or OAPM according to established thresholds with documentation provided to the DOE contracting officer.
- For contractors where the portfolio includes projects with a Total Project Cost (TPC) equal to or greater than \$50M but less than \$100M, surveillance can be accomplished by the PMSO. If the PMSO does not conduct surveillance, OAPM will perform the necessary surveillance.
- For contractors where the portfolio includes projects with a TPC equal to or greater than \$100M, or as requested by the AE, OAPM will conduct the surveillance.
- OAPM will conduct surveillance prior to Critical Decision-3 (CD-3) of a Major System project where the contractor's EVMS was previously self-certified or PMSO-certified.

Surveillance includes EVMS-applicable capital asset projects from CD-2 through Post CD-4 closeout. Post CD-4 activities are comprised of all activities chargeable against project costs including data deliverables, such as PARS II reporting, Lessons Learned, and Initial Closeout Report submittal (Ref. DOE O 413.3B, Table 2.4). The surveillance is focused on the Performance Measurement Baseline (PMB), based on the contractor's estimate, and includes all activities identified in the Statement of Work (SOW) or Project Execution Plan (PEP) through the period described above.

3. EVMS SURVEILLANCE ROLES AND RESPONSIBILITIES

Effective EVMS surveillance involves all stakeholders to include OAPM, PMSO, Federal Project Director (FPD), Contracting Officer (CO), and the contractor, working in an integrated, transparent manner.

3.1. OAPM

OAPM, in cooperation with DOE stakeholders, is responsible for the development and implementation of policies and uniform procedures defining the certification and surveillance process. OAPM encourages the full participation and cooperation of all stakeholders. Therefore, all stakeholders may be asked to function as surveillance team members. Stakeholder participation is an essential ingredient to an effective and successful surveillance program. OAPM will lead surveillance efforts in accordance with dollar thresholds provided in DOE O 413.3B.

Since the scope of EVMS surveillance focuses on continued compliance and implementation, the full contractor portfolio of capital asset projects at a single site where EVMS is applicable will be included in OAPM led surveillances. Coordination of surveillance activities with all stakeholders is vital to avoid duplication of effort, to minimize costs, to minimize disruption to the projects, and to increase communication. Where OAPM is the designated surveillance lead either per DOE O 413.3B or per request of the PMSO, OAPM will be responsible for the entire surveillance effort to include organizing, coordinating, and leading the surveillance team, defining the scope of the surveillance, closing any Corrective Action Requests (CARs), documenting the results, and informing the CO.

OAPM will provide support to the PMSO led surveillance on contracts with a portfolio of projects with a TPC equal to or greater than \$50M but less than \$100M. Upon PMSO request or if the PMSO does not conduct the surveillance, OAPM will lead the surveillance.

OAPM applies a risk-based, data driven approach to surveillance. As stated in DOE O 413.3B, multi-year contracts require surveillance activities at the approximate contract midpoint or at a minimum, every two years. OAPM's approach complies with the requirement but also identifies systemic concerns in a real-time fashion through use of the data analysis; thus, surveillance occurs more frequently, but no later than the DOE O 413.3B requirement. In the case of a Major System Project where the contractor has been previously certified, surveillance activities must be conducted prior to CD-3 in accordance with DOE O 413.3B.

3.1.1. OAPM EVM Specialist

The OAPM EVM Specialist is assigned overall responsibility for surveillance of contractor EVM Systems. Specific responsibilities include:

- Serve as EVMS Subject Matter Expert and assisting DOE employees and customers
- Develop and maintain EVMS related procedures and templates
- Serve as the OAPM lead for surveillance team activities
- Provide assistance to OAPM Project Analysts responsible for monthly analysis actions
- Coordinate surveillance processes with all stakeholders to avoid duplication of effort, minimize cost, and increase communication.
- Plan and conduct EVMS surveillances in accordance with DOE O 413.3B and as further defined in this SOP.
- Ensure capital asset project contracts contain the required EVMS FAR clauses.
- Determine subcontract surveillance requirements and assess contractor management of subcontractors in accordance with EVMS guidelines.
- Evaluate contractor proposed alterations to the system, including changes to documented processes and supporting procedures.
- Monitor successful closeout of surveillance activities.
- Upload all surveillance documents to OAPM's repository.

3.1.2. OAPM Project Analyst

The OAPM Project Analyst is responsible for conducting ongoing project level surveillance and analysis activities, which includes some or all of the following:

- Review and analysis of the contractor's monthly data in PARS II (Ref OAPM EVMS Program Analysis Standard Operating Procedures (EPASOP))
- Review and analysis of the contractor's Contract Performance Report (CPR)
- Review of contract modifications, and correct application of EVM
- Management Reserve, Undistributed Budget usage analysis
- Baseline stability analysis and verification
- Independent Estimate at Completion (IEAC)
- Independent Risk Assessments

- Continuous monitoring of correct usage of the organizational structure and work breakdown structure
- Identification of any deficiencies and trends
- Identifications of data integrity issues
- Integration into the CAR process, including follow up and resolution
- Assessments of current and future impacts of non-mitigated risks or unsuccessful corrective actions
- Communication of results and system health to the customer
- Coordinating with OAPM EVM Specialist regarding EVMS issues which are potentially compliance related
- Serving as a member of EVMS Surveillance Teams

In conducting project level analysis, the OAPM Project Analyst plays a key role in providing an early warning of and assessing issues that may involve EVMS processes and implementation. The analyst is responsible for coordinating with the EVM Specialist and working together to resolve data integrity issues and participating in system surveillance activities, which may include site visits, and evaluation of Corrective Action Plan (CAP) approval and closeout.

3.2. Project Management Support Office (PMSO)

In accordance with DOE O 413.3B, the PMSO conducts surveillances of contractor EVMS where the contractor's portfolio includes capital asset projects with a TPC equal to or greater than \$50 but less than \$100M. The PMSO will provide OAPM copies of all surveillance reports. The PMSO may request OAPM to conduct the surveillance. The PMSO will be requested to participate as a team member or observer in surveillance activities conducted by OAPM on contracts with a portfolio of projects with a TPC greater than \$100M.

3.3. Federal Project Director (FPD)

While the contractor has the primary responsibility for annual EVMS surveillance, DOE line management (i.e., the FPD/Site Office up through the PMSO) also shares in the responsibility. The FPD/Site Office is encouraged to conduct annual surveillances of the contractor EVMS in a manner that can verify (a) continued compliance with the certified EVMS, (b) that the certified

EVMS has been properly implemented, and (c) that the data is timely, accurate, and being used to manage the project. Such surveillances may be conducted jointly with the contractor.

If the DOE FPD/Site Office does not conduct joint surveillance, then they should assess the results of the contractor surveillance program to determine if additional DOE surveillances are warranted. In reviewing the results of the surveillances, DOE FPD/Site Office may decide to initiate surveillances or it may request a PMSO-led surveillance, or an OAPM led surveillance (through its program office).

To confirm data accuracy, the FPD/Site Office conducts periodic physical verifications to ensure that the progress being reported is commensurate with actual progress being incurred, and that the actual costs are being reported. The DOE FPD/Site Office also verifies on a monthly basis that the data from the certified EVMS is accurately uploaded into PARS II.

The FPD/Site Office's surveillance should also closely monitor areas previously identified by CARs to assess effectiveness of actions to prevent reoccurrence. Repeat findings are of particular concern as they may demonstrate an inherent weakness in the management processes and thus warrant more concentrated surveillance.

When the PMSO or OAPM leads a surveillance review, FPD/Site Office support in accomplishing surveillance is essential. This support includes:

- Keeping the PMSO and OAPM informed of actions and matters that could affect system surveillance;
- Assisting in the resolution of problems cited in surveillance reports;
- Reviewing, evaluating, and analyzing performance reports and schedules and bringing system and implementation concerns, and data integrity issues to the attention of PMSO and OAPM; and
- Participating as members of the surveillance team or observers as requested.

3.4. Contractor

The contractor is responsible for developing, implementing, and maintaining a surveillance program to ensure continued compliance with ANSI/EIA-748. The contractor is also responsible for ensuring that its EVMS is implemented on a consistent basis, is used effectively on all applicable projects, and EVMS clauses are flowed down to subcontractors in accordance with the rules applied to the prime. Pursuant to Appendix C of DOE O 413.3B, the contractor is required to conduct a self-surveillance and provide documentation of the self-surveillance to the contracting officer, PMSO, and OAPM confirming the continued compliance of their EVMS with the ANSI/EIA-748. In conformance with industry best practices as detailed in NDIA'S PMSC Surveillance Guide, the contractor surveillance is expected to cover all 32 Guidelines annually. This comprehensive review can be spread throughout the year at the contractor's discretion. The surveillance should be conducted by a team independent of the contractor's project team, such as an internal audit group, to avoid potential conflicts of interest. Contractor-proposed changes to the certified EVMS system description and supporting procedures require DOE approval prior to implementation per FAR 52.234-4(e) which is incorporated by DOE Order 413.3B, Attachment 1. The contractor notifies the DOE Certifying Authority in writing. DOE advises the contractor of the acceptability of such changes within 30 calendar days after receipt of the notice of proposed changes. 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.

An acceptable approach to surveillance planning could begin with the establishment of a comprehensive surveillance plan prepared by the contractor and provided for information and comment to the FPD/Site Office and PMSO. The surveillance plan should include a clear scope of surveillance, responsibilities, methods for performance, and schedule. The plan typically spans multiple years, is supplemented by an annual schedule with additional detail regarding the planned surveillances, and project(s) selected for review. EVMS guideline assessment templates, based on industry and government best practices, are available (Ref Appendix B).

3.5. Contracting Officer

The DOE CO is responsible for ensuring all applicable EVMS regulatory and contractual requirements, FAR clauses, data item and contract deliverables, and language relating to EVMS is included in the contract. The contracting officer also ensures that contractor performance is integrated with the contract award fee determinations and other mechanisms to ensure pay for performance including the assessment of EVMS implementation, certification, reporting, and project performance. It is incumbent upon the contracting officer, OAPM, PMSO, and the FPD(s) to work together to ensure project needs are met and understood.

During any formal OAPM led surveillance activities, OAPM will provide copies of reports to the CO. Should a contractor fail to maintain their system, OAPM may initiate a Review for Cause (RFC) in coordination with the PMSO and CO. Based upon the results of the RFC, OAPM will advise the CO and PMSO whether or not the contractor's EVMS certification is withdrawn, and/or recommend contractual remedies the CO may elect to exercise.

4. EVMS SURVEILLANCE PLANNING AND BUDGETING PROCESS

On-site visits to support EVMS Surveillance and program analysis activities will be conducted based on risk and data analysis rather than be event driven. OAPM EVMS Specialists will coordinate with the OAPM Project Analysts, PMSO, and FPD, to identify contractors that have one or more projects greater than or equal to \$100M. EVMS Surveillance for portfolios containing only projects less than \$100M will be funded by the Program requesting the review.

5. EVMS SURVEILLANCE PROCESS

The surveillance process selected for use by OAPM- led reviews as described in this SOP is modeled after the risk based, data driven EVMS surveillance approach widely endorsed by industry groups and Governmental agencies, such as National Defense Industry Association (NDIA), General Accounting Office (GAO), Department of Defense (DOD), and Energy Facility

Contractor's Group (EFCOG). OAPM's surveillance process is recommended for use for PMSO-led reviews as well.

The surveillance process focuses on areas identified as a result of risk and data analysis. Surveillance may be routine, i.e. continual, or situational as in an Implementation Review or Review for Cause. Regardless of the purpose of review, the basic process of risk evaluation and data analysis is the same. The difference is that the scope, depth, and rigor may be tailored to suit the situation prompting the review.

The EVMS surveillance process differs from the EVMS certification process in that the certification review includes all guidelines from both a procedural and implementation perspective, and a portion of the review is conducted on site to validate integration of tools, conduct interviews, and interact with users. The EVMS surveillance focuses on high risk guidelines and others, based on results of Stage 1 analysis.

The EVMS surveillance process begins with reviewing and analyzing earned value (EV) data and other artifacts, including reports from recent project reviews. An EVMS risk assessment is also conducted to identify areas of EVMS risk in each project. If the data and/or risk warrant a deeper look, then a desk audit may be conducted to gain more insight to include phone/VTC interviews with contractor and FPD staff, assess high risk guidelines, and review of additional supporting data requested from the contractor. Should areas of concern arise that cannot be sufficiently addressed off-site, then an on-site review team may be assembled to focus on remaining areas of concern as well as high risk guidelines that can only be assessed via visit. This tailored, focused review with subject matter experts is based on risk and analysis indicators, and is similar to the Project Peer Review process used throughout DOE. Figure 2 provides a graphical representation of the overall surveillance process.

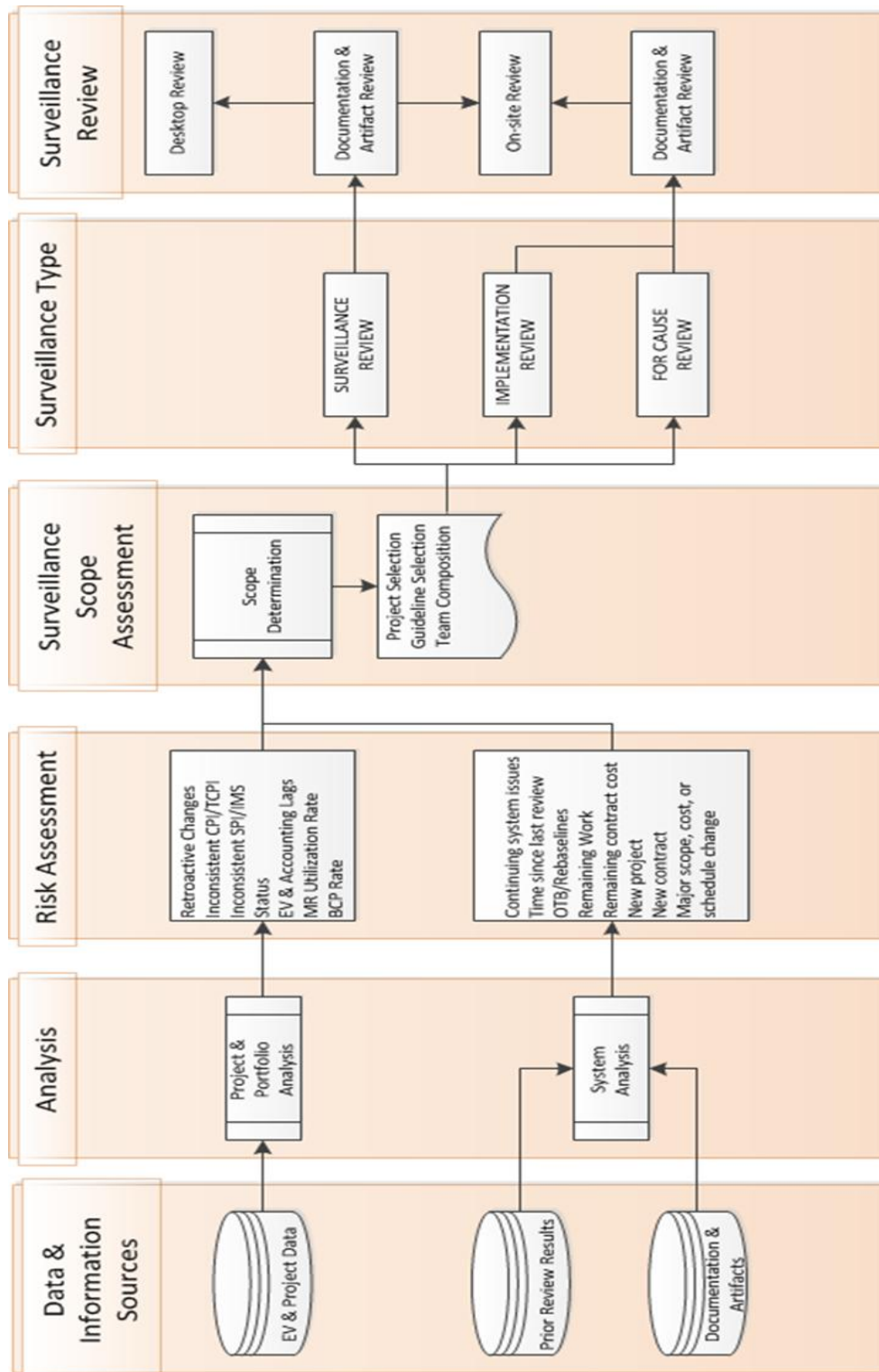


Figure 1. EVMS Surveillance High Level Process Overview

5.1. Surveillance Scope

As shown in Figure 2, data analysis (typically monthly) combined with periodic (typically bi-annual) EVMS risk assessments help determine if further surveillance is needed. This stage of the EVMS surveillance process is referred to as Stage 1. The decision to proceed to a more detailed surveillance is based on concerns and risks identified in Stage 1. The surveillance schedule should include all processes, with more intense evaluations on those programs/contracts with high or medium risk since they are most likely to cause unfavorable cost, schedule, and technical performance impacts. The scope may consist of just a few control accounts where the risk assessment identified the greatest cost and schedule risks or the greatest to go cost. The risk assessment may identify multiple projects where project performance indicates that the system may not have been institutionalized with the project management organization.

If concerns exist to justify further surveillance, the minimum surveillance scope will be an off-site review, referred to as Stage 2 Desk Top Surveillance, of a contractor's project(s) performance information. Other artifacts may be requested depending on the nature and scope of the surveillance. Desk Top Stage 2 Surveillance may indicate that an on-site review, referred to as Stage 3 On Site Surveillance, is necessary to consult directly with Control Account Managers (CAMs) and other project team members in a more in-depth nature to determine whether the system implementation continues to comply with ANSI/EIA-748.

5.2. Surveillance Schedule

The surveillance review scheduling is influenced by the length of time since the last surveillance or certification review, risk factors determined during the risk assessment process, and the results of the monthly EVM data analysis. Schedules will be coordinated with the PMSO and FPD and adjusted to align with project events and other reviews to ensure that project staffs are available to support the surveillance.

5.3. Team Composition

The size and composition of the team conducting the surveillance is governed by the size and complexity of the contract(s) and project portfolio, the focus of the review based on analysis and risk indicators, and whether the surveillance is being conducted on-site or remotely. In all cases, the surveillance team should include EVMS subject matter experts as well as the Project Analysts responsible for conducting oversight of the project and the contractor.

The surveillance team includes individuals from OAPM, PMSO, and other DOE Site Offices, and may include contracted support personnel. All participants are expected to be experienced in the DOE surveillance process, knowledgeable in the application of the ANSI/EIA-748 EVMS guidelines, and familiar with the contractor's work scope and EVMS processes. Similar to the Project Peer Review process, the EVMS surveillance team provides consistency among DOE sites and contractors by maintaining a cadre of experienced team members. In an effort to strengthen the EVMS core competencies in DOE, employees from other DOE Site Offices are encouraged to participate in these reviews as a training opportunity.

5.4. Artifacts and Information

While the artifacts and information employed in surveillance are identical to those used for a certification review, the depth and scope of a surveillance review is typically not as extensive as a certification review. Artifacts are dynamic information outputs that results from the operation of the EVMS. These include logs, change requests, reports, and other information containing pertinent information. Artifacts can be contrasted with information that is primarily static, such as process and system descriptions. Artifacts for surveillance contain more information than those provided for certification, such as performance data, logs, and other data that were produced as a result of the system operation and project progress. A list of typical artifacts and information used in surveillance reviews are listed in a Review Documentation Requirements (Reference Appendix B).

The specific artifacts and information that are necessary for surveillance depend on the scope of the surveillance, which is an outcome of the risk assessment process. The availability and

accessibility of the artifacts and information is an integral part of the surveillance. For example, the inability to readily produce a Management Reserve Utilization Log or similar artifact is an indicator that the system is not functioning as originally reviewed and certified.

5.5. Conduct of Surveillance

The EVMS surveillance is performed in a manner that facilitates answering four fundamental questions:

- Is the data accurate, timely and reliable?
- Is the system being used to manage the project?
- Does the data represent the entire scope?
- Does the system comply with ANSI/EIA-748?

The surveillance involves examining artifacts such as logs, change requests, and budget reconciliation documents to ensure that the system is operating as designed and described in the system description. System utilization is primarily evidenced through the explanation provided for the data and the subsequent managerial decisions in response to the data.

Determination of accuracy, timeliness and reliability requires examination of the data to ensure that it represents true project performance. This is evidenced through the examination of trends, which correspond to project events.

The validity of the Performance Measurement Budget (PMB) is a key objective of surveillance and is primarily achieved through the examination of budgets, baseline change documentation, reconciliations, and other data to ensure that all costs are reflected in the PMB and that all costs are related to defined scope as identified in the Integrated Master Schedule (IMS).

The overall process for conducting the surveillance is focused on the entire portfolio of projects for each contract and/or site using a risk-based approach that factors in the project performance trends, process indicators, and project events such as baseline changes, time since last review, and others. The risk-based approach ensures that the surveillance program is focused where the need and risk to the agency are the greatest and is incorporated throughout the process to

determine the scope and content of the review. The surveillance process is conducted in three stages:

- Stage 1 – Risk assessment and on-going monthly analysis
- Stage 2 – Desk top surveillance review.
- Stage 3 – On site surveillance review.

For most contractors, the surveillance will be conducted through at least Stage 2. For some projects within the contractual portfolio; however, Stage 1 data analysis may be sufficient and determined as low risk. For high risk projects where data analysis indicates an increased risk in data stability, a more in-depth on-site approach, i.e. Stage 3, involving a team of subject matter experts will be used to ensure identification and resolution of issues. OAPM's risk-based surveillance program is coordinated with the PMSOs and FPDs. The overall process flow depicted in Figure 2 is further detailed in Figure 3 to identify responsibility and stages associated with the surveillance process. The following sections describe the process in detail.

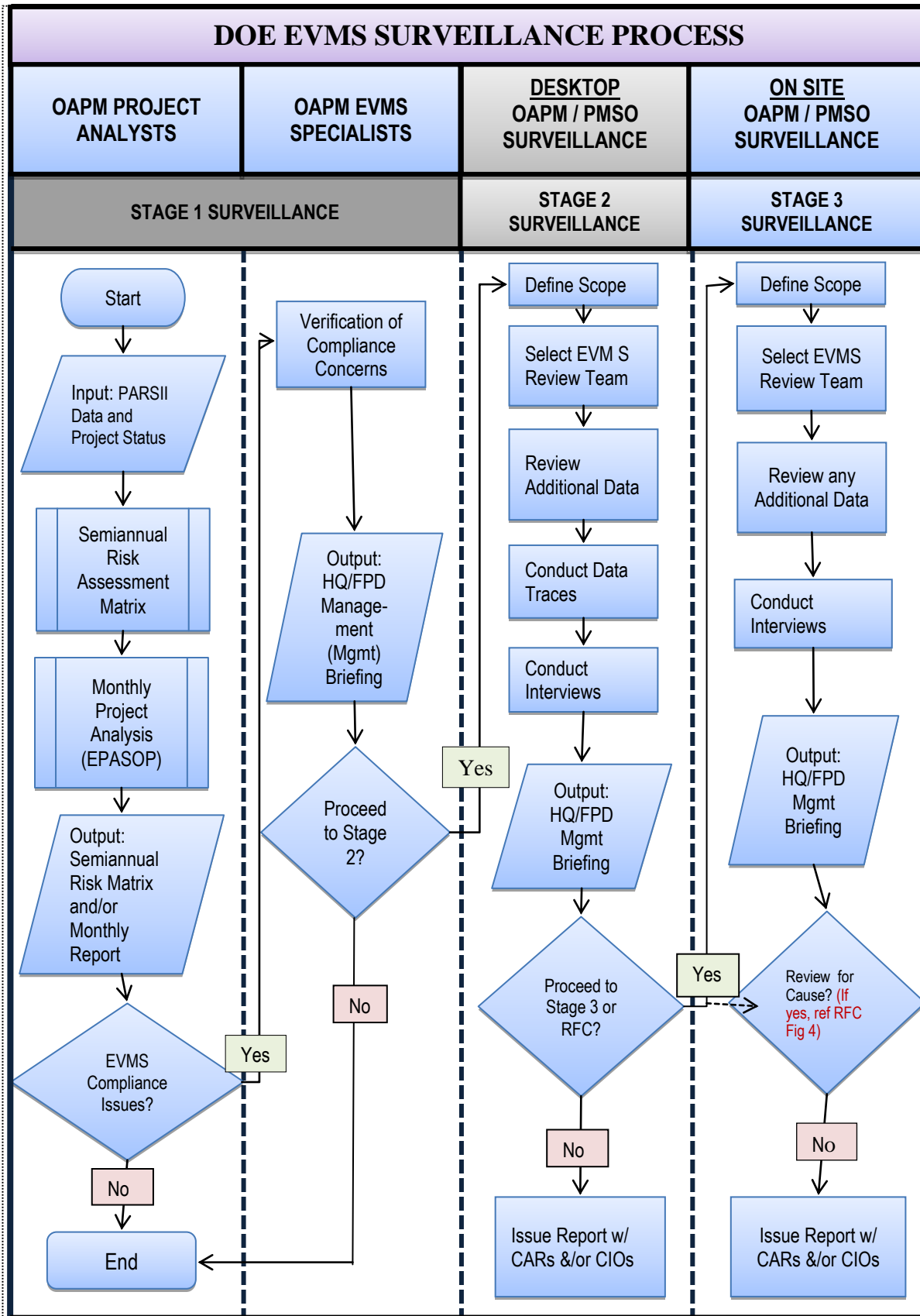


Figure 2. DOE EVMS Routine Surveillance Process Flow

5.6. Stage 1 Surveillance – Risk Assessment and On-going Monthly Analysis

There are two key elements of Stage 1 surveillance: (1) risk assessment, and (2) data analysis. The results of these two processes drive the decision of whether further EVMS assessment is justified and, if so, how to focus increased surveillance on processes and guidelines that have the greatest risk of unfavorably affecting system integrity. To combine the results into meaningful areas related to the EVMS guidelines, the nine EVMS process areas included in the risk assessment are:

- Organizing
- Scheduling
- Work authorization
- Accounting
- Indirect management
- Management & Analysis
- Change management
- Material management
- Subcontract management

These contractor business and management processes are cross-referenced to the ANSI/EIA-748 guidelines resulting in a comprehensive definition of an acceptable EVMS. This cross reference can be found in Appendix B.

5.6.1. Assess Project and Project Risk and Develop Risk Profile

Risk assessment is one of two key processes performed in Stage 1 surveillance, the other being data analysis. The OAPM EVM Specialist and Project Analyst conducts a risk assessment to generate a risk profile for the entire portfolio of projects for each contract and/or site for which earned value is required and is subject to surveillance. Typically this will be done on a semi-annual basis, unless there is a sufficient change to the portfolio that would change the risk assessment results. To level out the workload, it is recommended the risk assessment process be staggered, covering a couple of certified contractors each month.

The risk assessment provides risk ratings for applicable risk elements tied to EVMS processes to support planning and preparation of the EVMS Surveillance Schedule. These results guide surveillance activities to particular EVMS processes where the risk assessment indicates possible systemic risks

(multiple projects or multiple control accounts) or significant cost or schedule risks that are related to one or more processes. The risk assessment matrix approach used in DOE is based on concepts from the NDIA Surveillance Guide. The template used for this process is the DOE EVMS Risk Assessment Matrix (Ref Appendix B). Process risks are summarized by Business and Management Process Areas, by project, and by contractor portfolio.

5.6.2. Data Analysis

Project assessment is done as a part of the OAPM Project Analyst's role and is the other key process supporting Stage 1 EVMS surveillance. The OAPM Standard Operating procedures for EVM data analysis is entitled EVMS Project Analysis SOP (EPASOP). It contains a data surveillance process, routinely conducted monthly, with the use of many PARS II reports specifically designed for this purpose. PARS II is considered the authoritative source of information on contractor project phases, and earned value data. Other data sources include the contractor's EVMS self-surveillance documentation, and any assessments conducted by the FPD, PMSO, and/or OAPM that evaluates project performance, such as monthly project status reports and peer reviews. These sources are analyzed to identify data disconnects, negative trends, and significant changes that may, upon further review, identify systemic issues between the earned value data and the physical progress as compared to the approved baseline.

The OAPM Project Analyst coordinates with the OAPM EVM Specialist when potential non-compliances or systemic concerns are identified or suspected. Conversely, the OAPM EVM Specialist interacts with the OAPM Project Analyst, PMSO, and the FPD who have project level knowledge of the technical baseline, progress, as well as cost, schedule, and technical risks. This interaction provides the OAPM EVM Specialist with valuable insight into the identification of disconnects and system issues among other projects.

The EVM Specialists support Project Analysts as requested in conducting monthly assessments to identify and investigate EVM-related non-compliance issues. This process ensures that corrective actions are completed swiftly thus minimizing the impact to the performance indices.

The following table provides some of the more common indicators of systemic EVMS issues that should be examined in more detail and identified in the risk profile as a routine function of the monthly performance analysis process.

Table 1. System Compliance Common Issues Indicator

| Indicator | Explanation | EVMS Compliance Indicator |
|--|--|--|
| No variances at summary level | Variances are normal. No variances are abnormal. | May be excessive Level of Effort (LOE) or inadequate planning of Control Accounts resulting in consistent underruns offsetting negative variances in other Control Accounts. |
| Abrupt disappearance of variances | Recovery from unfavorable variances by management action requires accomplishment of work that was not accomplished according to plan. | Cost overruns cannot disappear by work effort unless scope is decreased or budget is increased (application of Management Reserve (MR)). Both of which are violations of the standard. |
| Control Account budgets, MR, and Undistributed Budget (UB) do not reconcile to TPC | All budgets must be accounted for in an account. Budgets are not funds. Budgets must always reconcile to the TPC. | The inability to reconcile budgets indicates that changes have been made which were not accounted for by the system processes. |
| Milestones not met, but no cost or schedule variances | Milestones are dependent upon task/activities, which are the work packages that comprise Control Accounts. Missed milestones therefore, result from incomplete work, which create variances in Control Accounts. Missed milestones must have corresponding variances. | Schedule contains work not in PMB. PMB does not accurately identify the entire scope of work. |
| Excessive or improper MR utilization | Excessive use of MR indicates that Control Accounts and Work Packages are not being sufficiently defined prior to start of work | MR cannot be used to eliminate overruns. MR can only be used for uncompleted future work. MR cannot be applied to completed work, i.e. Budgeted Cost of Work Performed equals the Budgeted Cost of Work Scheduled |
| Unfavorable performance indices with no schedule impact | Cost variances do not automatically result in a schedule variance. Schedule variances indicate that the planned work was not completed in the period in which it was planned and scheduled. The variance analysis should always address the schedule impact. Not all schedule variances will have a critical path impact (and consequently, a milestone impact). However, all schedule variances should be evident in the schedule status. | A valid PMB depends on cost and schedule integration. Variances that have no corresponding schedule impact and schedule status that has no corresponding variance indicates an issue with cost and schedule integration. |

| | | |
|---|---|--|
| <p>Identical variance analysis and mitigation plans across time periods</p> | <p>Variance analysis should be directly associated with explaining and mitigating specific variances</p> | <p>Generic and obvious explanations with no specific proposed or planned management actions indicates that the performance information is misunderstood or not being used.</p> |
| <p>Continuing unfavorable performance trend</p> | <p>A key objective of EVM is to provide information to manage performance. Continuing unfavorable trends with no direction change indicates that there is no action taking place to mitigate performance</p> | <p>Analysis of variances and management action as a result of the analysis is a key tenet of EVM. Either the management processes do not provide the appropriate level of insight into the significance of the performance information or the information is not being used.</p> |
| <p>Excessive baseline change rate</p> | <p>All projects undergo change but the change rate should decrease as the project matures. Excessive internal changes, i.e. replanning within C/A or use of MR), may indicate inadequate planning or conversion of summary level planning packages into Control Accounts and Work Packages. External changes, driven by customer directed changes to scope, schedule, budget, i.e. use of DOE contingency, should also be monitored for application of contingency.</p> | <p>Control Accounts must be planned in detail before work is authorized. Translation of the SOW into plan must account for uncertainty in later work.</p> |
| <p>Excessive favorable variances</p> | <p>Significant favorable variances can only be explained by increased productivity, significant labor or material cost reductions, or inadequate planning which resulted in a pessimistic plan</p> | <p>Reduced scope must have a corresponding budget reduction. Rate changes must also be documented. Scope or budget changes must be documented using the change management process.</p> |

5.6.3. Decision Basis for Proceeding to Stage 2, Stage 3, or Review for Cause (RFC)

When the EVMS Specialist identifies concerns during data analysis, he/she proceeds with preparation of a briefing to OAPM management. To support the recommendation to continue to a desk-top surveillance, called a Stage 2 Surveillance, the EVM Specialist applies the risk assessment results discussed previously, supported by data from the data analysis, for detailed rationale as to potential, summarized by the Business and Management Process Areas. If there are no concerns that justify further surveillance, the Stage 1 process is considered complete until the next monthly cycle.

As Stage 2 Surveillances are approved, the surveillance schedule is developed. As there can be several contractors in the cycle, the surveillance schedule is prioritized based on high and medium risk areas on high impact contractors/projects and DOE Order 413.3B requirements, i.e. review of each contractor every two years or project midpoint. The schedule will identify the contractor's EVMS processes to be reviewed, the selected projects, and the anticipated timeframe. Using a continuous, data-driven approach, the surveillance may be conducted over several months or during a single review.

Most surveillance will be off-site desk top reviews of individual projects. Site visits for surveillance (Stage 3 or RFC) of a contractor's EVMS including the entire project portfolio will be scheduled based on the results of the desk top reviews. Surveillance schedule revisions may be necessary due to potential impact of identified concerns, resource issues, or other events.

5.7. Stage 2 Desk Top Surveillance

Stage 2 of the surveillance process is focused on specific procedures, contractor business, and management processes. The input to Stage 2 is one or more areas of concern identified during the Stage 1 surveillance. Typically these would be specific processes or procedures that do not appear to comply with ANSI/EIA-748.

The objective of the Stage 2 surveillance is to conduct a much more thorough review than Stage 1, and possibly issue CARs as required if no follow-on review is planned. Stage 2 surveillance requires the review of the EVMS documentation and artifacts and may include consultation with CAMs and other project team members. Such consultations will be accomplished using emails and audio and/or video teleconferences. The outcome of the Stage 2 surveillance is either (1) a final report with any CARs and CIOs as described in Sections 6 and 7 of this SOP or (2) an OAPM Management decision point to proceed with either an on-site Stage 3 surveillance or a RFC based on senior leadership direction.

5.7.1. Surveillance Scoping Meeting

PMSO, FPD, and OAPM representatives conduct a surveillance scoping meeting to collaboratively define the scope of the surveillance based on the risk matrix and data analysis. An OAPM EVMS

representative chairs the scoping meeting, and attendance should include appropriate PMSO, FPD, and project personnel.

At a minimum, the scope of Stage 2 addresses concerns raised in Stage 1 and the sixteen (16) DOE high risk guidelines (1, 3, 6-10, 12, 16, 21, 23, 26-28, 30, and 32) as well as Guidelines 14 and 29 as part of the Stage 2 scope since it has been recognized that data is not otherwise available in the prior stage to adequately assess all guidelines and risk areas. Another essential part of Stage 2 surveillance is verification that the PARSII data being uploaded by the contractor agrees with the contractor's internal data they are using to manage the program, i.e. one set of books. This can be evaluated by comparing contractor CPRs to PARSII data, interviewing CAMs and looking at Control Account level data to ensure what is reflected in the CAM's access to cost and schedule engines agrees with PARSII (based on same reporting period dates, Budgeted Cost of Work Performed that has been claimed, etc.)

The results of the scoping meeting include a determination of the procedures and processes to be examined; the documentation and artifacts necessary for the surveillance; the team composition; and the timeline for the surveillance.

5.7.2. Team Selection

Based on the surveillance scope, the scoping meeting attendees will outline the required knowledge and skills required for the review team members. The OAPM Lead will:

- 1) Develop the review plan (Ref Appendix B),
- 2) Assign areas of responsibility to team members including peer review members,
- 3) Execute the surveillance,
- 4) Develop the out-brief (Ref Appendix B), and
- 5) Issue the EVMS surveillance report (Ref Appendix B).

The EVMS Surveillance team members are expected to provide independent input in the development of the out-brief and draft report. OAPM will approve the final EVMS Surveillance team membership through approval of the review plan.

For many projects, the Stage 2 Surveillance Team will be much smaller than that which is necessary for an on-site review. The team composition for surveillances is a function of the number of projects, control accounts, and procedures that must be reviewed as well as the number of CAMs and other personnel to be interviewed. By its nature, a Stage 2 surveillance team will consist of an OAPM lead, the OAPM and PMSO analysts, and any necessary contract support. Program project staff may be necessary for some parts of the surveillance.

5.7.3. Roles and Responsibilities

During the EVMS surveillance process, roles and responsibilities should be clearly understood by all participants (Table 3). For continuous ongoing surveillance triggered by projects equal to or greater than \$100M, or as requested by the PMSO, the OAPM EVM Specialist will monitor monthly earned value data from PARS II, surveillance activities conducted by contractors and FPD staff, and any other relevant data and reports.

Table 2. Desk Top Surveillance Team Roles/Responsibilities

| Role | Responsibility |
|---------------------------|---|
| OAPM EVM Specialist | Surveillance lead; facilitate the process; resolve issues; document results |
| OAPM/PMSO Project Analyst | Support process with technical project specific insight |
| Program/FPD | Support process with resources, time, data, and personnel |
| Contract Support | EVMS team members; assist in assessment; prepare review documentation and reports |

While not always possible, every effort should be made to clarify and resolve differing opinions of team members. The OAPM EVM Specialist will be responsible for facilitating resolution. The OAPM EVM Specialist is also responsible for documenting all interviews, CARs, CIOs, data traces, and the final report. Those responsibilities may be delegated to contract support.

5.7.4. Project Selection

In order to determine if any systemic issues exist, the entire contractor portfolio of EVMS-applicable projects is considered for EVMS surveillance. A risk-based, data-driven approach is used to determine which projects should be reviewed in which areas. The completed EVMS Risk Matrix (Ref Appendix B) for that contractor provides the risk information, and the monthly data assessment results provide additional concerns. For example, while data analysis may identify a particular non-compliance, other control accounts within that project, and other projects within the portfolio are also reviewed to determine the full extent of the issue. For the high risk guidelines being review as previously listed, the EVMS Risk Matrix shows which projects should be selected based on high and moderate risk levels identified on the matrix's Business and Management Process Area summary.

5.7.5. Contractor Documentation and Artifact Review

Reviewing contractor's documentation encompasses the review of static information such as the system description document and artifacts, which are dynamic outputs of the contractor's business and management processes, such as change control logs. The additional data needed from the contractor to support the scope will be requested by OAPM to the CO. Notification and Review Documentation Requirements templates will be used (Ref Appendix B). The CO will then communicate with the contractor to provide the requested information. Other templates to support Stage 2 include CAR/CIO template, Interview Findings Form (IFF), and Final Stage 2 Report format (Ref Appendix B).

5.7.6. Conduct Data Traceability

Because EVMS is an integrated set of processes, these processes must work in concert as a total system. Each sub-process of the system requires input from another process and provides outputs to still other processes. Tracing the data flow between processes is a critical element of the review process for the review team. Data Trace templates are used to conduct traces (Ref Appendix B). Disconnects between the EVMS processes indicate that the system is not functioning as intended and that the processes and procedures must be examined in detail. This in-depth examination includes discussions with affected CAMs and other project staff. CAM discussions should be accomplished

using audio, web-based, and/or video teleconferences to provide the insight necessary to determine if and what type of corrective action is necessary.

5.7.7. CAM, Program/Project Staff Interviews

When necessary, the surveillance team conducts interviews with appropriate program/project staff to gain additional insight or knowledge that would help them determine compliance with EVMS requirements. These interviews may be less than full interviews with CAMs and may be conducted by audio and/or video teleconferences, as well as email and WebEx. Interviews are conducted using the IFF template (Ref Appendix B).

Some of the interview areas to consider are:

- Work authorization
- Organization
- EVM methodologies
- Cost and schedule integration
- Cost accumulation
- Scheduling and budgeting
- Material management
- Subcontract management and integration of data
- Risk assessment and mitigation
- Variance analysis
- Use of the information
- Change control and maintenance
- Estimate at Completion (EAC) process
- EVMS program training

5.7.8. Stage 2 to Stage 3 or RFC Decision Point

As in Stage 1 to 2, the OAPM EVM Specialist will develop a briefing with adequate rationale for OAPM Management to determine if the Stage 2 surveillance is sufficient, or if a Stage 3 or RFC is in order. Prior to initiation of a continued surveillance review, OAPM may decide to issue draft CARs and Continuous

Improvement Opportunities (CIOs) identified during Stage 2 that would not be influenced by further on-site discussions. The decision to conduct a RFC can occur after Stage 2 or Stage 3 surveillance, depending on supporting rationale.

5.8. Stage 3 On-Site Surveillance

The primary difference between Stage 2 and Stage 3 surveillances is that the Stage 3 surveillance includes an on-site segment consisting of interviews with CAMs, management, and other project staff, the observation of demonstrations of tools and traces that could not be conducted remotely, and physical verification of progress to assess reported work performed is accurately reflected. The on-site surveillance is a focused review, specifically to assess concerns raised in Stages 1 and 2 that could not be completely evaluated via the desk top surveillance. A Stage 3 may also address concerns with the contractor documented EVM process.

Based on historical recurring concerns identified during live CAM interviews, seven (7) guidelines (3, 6, 9, 23, 27, 28, and 30) have been identified as minimal guidelines to be evaluated once an on-site review is authorized. Any additional data needed from the contractor to support the scope will be requested by OAPM to the CO. This surveillance is typically conducted over a consecutive period and requires the availability of program/project staff to support the review. Consequently, OAPM will notify the PMSO and FPD at least four weeks prior to an on-site visit to a contractor.

5.8.1. Stage 3 to RFC Decision Point

As in Stage 2 to 3, the OAPM EVM Specialist will develop a briefing with adequate rationale for OAPM Management to determine if the Stage 3 surveillance is sufficient, or if a RFC is in order.

5.9. Review for Cause (RFC)

An RFC is conducted after EVMS surveillance identifies significant concerns pertinent to whether the EVMS may still be relied upon to provide reliable and accurate project information. The purpose of an RFC is to provide the contractor an opportunity to demonstrate that a fully integrated and compliant EVMS exists, is implemented, and has been maintained. Considerations should include the contractor's progress against

corrective actions plans and accuracy of performance data generated. The decision to initiate an RFC may occur after Stage 2 or Stage 3 surveillance.

Generally the Stage 2 drivers for an RFC decision are fundamental concerns of the project's use of EVM to manage. This is typically illustrated with significant concerns in work authorization, scheduling, variance analysis, EACs, revisions and integration at the same time. In this situation a larger more extensive review is warranted and Stage 3 may be omitted.

The RFC is conducted on-site, and encompasses all EVMS guidelines, contractor's surveillance and maintenance efforts, as well as re-evaluation of the contractor's EVM System Description and supporting procedures. Upon completion, DOE will determine if compliance has been demonstrated, and if not, determine the path forward which may include EVMS Certification withdrawal. OAPM works closely with the Contracting Officer (CO) through this type of review given that the withdrawal puts the contractor in a position of non-compliance to the terms and conditions of the contract, and the possibly that sanctions or contractual remedies may result.

6. CORRECTIVE ACTION REQUESTS (CAR) AND CONTINUOUS IMPROVEMENT OPPORTUNITIES (CIO)

During the course of conducting EVMS surveillance, non-compliances will be documented via a CAR. The purpose of a CAR is to formally notify the contractor of deficiencies and non-compliances. All CARs require a documented course of action (i.e., corrective action plan) to bring the EVMS into compliance with ANSI/EIA-748 (latest version or as specified in the contract). If deficiencies are identified during the course of the surveillance, it is the surveillance team's responsibility to prepare and issue a CAR. Deficiencies must be documented on a CAR and address the consequences if the non-compliance is not corrected. Additionally, the surveillance team should evaluate the appropriateness of all contractor corrective actions.

All CARs will be documented and tracked to closure. Verbal CARs are not acceptable. The CAR process applies whenever a discrepancy is identified, even if discovered outside of a formal surveillance.

CIOs may be issued to identify areas for process improvement. These may include suggested best practices, lessons learned, or other efficiency or effectiveness measures to streamline processes. CIOs do not require a written response from the contractor and approval by the team; however, they are encouraged to share their thoughts and plans pertaining to the ideas provided.

6.1. Types of CARs

Two types of EVMS non-compliance are documented in CARs. The first is a *process* non-compliance, i.e., the contractor's EVM System Description and/or supporting procedures (the 'written word') do not comply with one of the 32 ANSI/EIA-748 Guidelines. Corrective actions associated with instances of *process* non-compliance will require changes to the contractor's EVM System Description. The second is an *implementation* non-compliance, i.e., the contractor's EVM System Description and/or implementing procedures are not being followed in practice.

6.2. Documenting CARs

CARs must contain a succinct description of the non-compliance, relevant guideline number, and a quote from the Intent Guide providing the verbiage not being adhered to (paraphrasing is not allowed). Note the NDIA PMSC Intent Guide is not on contract and DOE only uses the Intent Section of the guide. This section is the where authors of the ANSI/EIA-748 explain the intent of each guideline. For process issues, a quote from the EVM System Description containing the non-compliant verbiage for each guideline impacted must be included as evidence. For implementation issues, a quote will be included from the EVM System Description describing the process not being properly implemented. The EVMS CAR Template used by OAPM is available (see Appendix B)

Sufficient back up data shall be submitted with each CAR as exhibits, i.e. screenshots of data, to substantiate the non-compliance. Exhibits should provide easy to understand "pictures" of the problem, and should include a title describing the exhibit, and annotation of the area of interest by circles, arrows, or any other indicator to assure clear understanding of the non-compliance. Process CARs will include an exhibit containing the completed EVM guideline assessment identifying which guidelines are not being adhered to within the EVM System Description.

In the case of process CARs, each non-compliant guideline may be grouped and listed on one CAR or they can be grouped by process area into multiple CARs. The CAR will not simply state “all guidelines” unless supported in the CAR description and the EVM guideline assessment.

CARs are issued to the contractor typically within 15 days after an on-site surveillance. The OAPM EVM Specialist makes the distribution of the CARs and CIOs to the contractor, FPD, PMSO, and surveillance team.

6.3. Corrective Action Plan (CAP) Review

The contractor’s response to the CAR shall include a CAP that provides the following attributes:

- Identification of the root cause(s) of the problem
- Actions to be taken or planned to resolve the identified non-compliance
- Internal controls established to prevent a recurrence of the non-compliance
- Verification that the proposed CAP will result in compliance with the affected ANSI Guideline.

Upon receipt of the contractor’s response, the surveillance team, working through OAPM, shall perform a review of the CAP to ensure the items above have been satisfactorily addressed. The CAP Analysis report will be issued by the OAPM EVM Specialist to the contractor, FPD, PMSO, and surveillance team.

6.4. CAR Verification and Closure

All corrective actions must be verified through follow up actions. The OAPM EVM Specialist shall plan, schedule, and approve all verification follow up actions and closure of CARs. Verification of corrective action shall be based on the following:

- Inspection of supporting documentation and/or on-site visual inspection of corrective actions;
- Effectiveness of the corrective action in satisfying the guideline(s); and
- Previous CAPs to verify compliance maintenance with guideline(s).

As part of the CAP verification, the surveillance team shall document the CAR closure criteria. The closure criteria should contain what actions are required to be successfully accomplished before the CAR can be closed out. The surveillance team is responsible for ensuring that the closure criteria are verified and a mutual understanding has been reached. As part of closure criteria verification, the team should consider the following:

- Is the guideline being met?
- How is this different from when the guideline was not being met?
- Are internal controls in place to prevent guideline non-compliance from recurring?
- Does this CAR affect the contractor being compliant with other guidelines?
- Are other projects affected by the CAR? If so, will they be compliant with the guidelines?

If the OAPM EVM Specialist determines that verification is not necessary, then the surveillance team documents the status of the closure verification.

If the verification follow-up results in continued non-compliance or new deficiencies, then the EVM Specialist will decide if escalation is warranted. Before a decision to escalate is made, the surveillance team may be asked to determine if more verification is required, if a different type of verification is necessary, and if a new or revised CAP is required.

6.5. CAR/CIO Database

The EVMS CAR/CIO Database provides a repository of data useful in providing historical information and identifying emerging areas of concern. The OAPM EVM Specialist ensures CARs are documented and their status updated in the CAR/CIO database. Information tracked includes affected guideline, process area, problem, author, reviewer, contractor, project, date, type of surveillance, and whether it is a CAR or CIO.

7. EVMS SURVEILLANCE RESULTS DOCUMENTATION

7.1. EVMS Surveillance Documentation

OAPM will retain copies of the information pertinent to the surveillance conclusions, such as completed templates, data reviewed, and results of EVMS-related reviews. Completed templates may include the EVMS

Risk Assessment Matrix(s), Interview Finding Forms, Guideline Assessments, In Brief, Out Brief, Document Request Log, Review Documentation Requests, CARs, and CIOs. Other data retained may include PARS II reports identifying problem areas and contractor-provided data identifying issues or concerns.

7.2. EVMS Standard Surveillance Report (SSR)

For OAPM led reviews, the surveillance team documents the results of system surveillance in a written report that is issued by the OAPM Director. The report includes an overall assessment of the contractor's implementation of the EVMS, scope of the review, and findings of deficiency or non-compliance that resulted in CARs. A report template is available (see Appendix B). The template is mandatory for OAPM and recommended for use on PMSO, Site Office/FPD, and contractor led surveillances.

Standard Surveillance Reports should include at a minimum:

- Executive Summary Scope of Review
- Assessment and Findings
- Conclusion

Attachments to the report include the DOE EVMS Risk Assessment Matrix(s), CARs, and CIOs. Supporting documentation from the review is kept on file at OAPM such as the data trace documentation, PARS II reports.

For contractor self-surveillances, it is recommended that the report include the completed EVM guideline assessment templates as all must be reviewed annually.

7.3. EVMS Standard Surveillance Report (SSR) Distribution

After internal management approval of the report, it will be issued via cover letter signed by the Director of the Office of Acquisition and Management. The completed package will be directed to the Contracting Officer, with copies to the Contractor, PMSO, and FPD. OAPM will ensure a copy is retained in the central data repository.

7.4. EVMS Standard Surveillance Report (SSR) Retention

Surveillance files shall be established and maintained indefinitely by the OAPM EVM Specialist to hold all pertinent surveillance data and information.

8. EVMS EVALUATION AND FEEDBACK

EVMS evaluation and feedback is highly encouraged and valued in an effort to continuously improve and add value to surveillance reviews. Program offices, project teams, and PMSOs are encouraged to provide OAPM with feedback on the conduct of the EVMS Surveillance, including any comments related to:

- Application of the Risk Matrix
- Surveillance Plan development
- Knowledge and professionalism of the EVMS team members
- Preparation and support of the EVMS team
- Resolution conference
- Timeliness and responsiveness of OAPM and the EVMS team
- Quality of the review and findings
- CAP review process

Feedback forms are available at <http://energy.gov/management/office-management/operational-management/project-management/earned-value-management>. The EVMS surveillance lead will distribute forms, and the forms will be requested to be transmitted to the OAPM Point of contact (POC). The OAPM POC will maintain the confidentiality of the submitter(s) of the forms, and ensure that feedback is only communicated through compilations.

9. ADDITIONAL RESOURCES

American National Standards Institute/Electronic Industries Alliance (ANSI/EIA) 748
<http://webstore.ansi.org/RecordDetail.aspx?sku=EIA-748-C>

Department of Defense Earned Value Management Implementation Guide, latest version.
<http://www.acq.osd.mil/evm/resources/guidance-references.shtml>

DOE Office of Management, Project Management, Earned Value Management website.
<http://energy.gov/management/office-management/operational-management/project-management/earned-value-management>

DOE, *Program and Project Management for the Acquisition of Capital Assets*, DOE O 413.3B, Washington, DC: 11-29-2010.
<https://www.directives.doe.gov/directives/current-directives/directives-current-400-series>

DOE Guide 413.3-10, *Earned Value Management Systems*
<https://www.directives.doe.gov/directives/current-directives/directives-current-400-series>

DOE Guide 413.3-20, *Change Control Management*
<https://www.directives.doe.gov/directives/current-directives/directives-current-400-series>

DOE OAPM, *EVMS & Project Analysis Standard Operating Procedure (EPASOP)*
<http://energy.gov/management/office-management/operational-management/project-management/earned-value-management>

Federal Acquisition Regulations 34.2 and 52.234, *Earned Value Management Systems*
<http://energy.gov/management/office-management/operational-management/project-management/earned-value-management>

GAO. *GAO Cost Estimating and Assessment Guide*, GAO-09-3SP. Washington, DC: March 2009
<http://www.gao.gov/new.items/d093sp.pdf>

GAO. *GAO Schedule Assessment Guide*, GAO-12-12OG. Washington, DC: May 2012
<http://www.gao.gov/assets/600/591240.pdf>

OMB Circular A-11, Part 7, *Capital Programming Guide*
http://www.whitehouse.gov/omb/circulars_all_current_year_all_toc

NDIA PMSC, *Earned Value Management Systems Intent Guide*, 2011
<http://www.ndia.org/Divisions/Divisions/Procurement/PMSC/Pages/PMSCCommitteeDocuments.aspx>

NDIA PMSC, *Surveillance Guide*, 2011
<http://www.ndia.org/Divisions/Divisions/Procurement/PMSC/Pages/PMSCCommitteeDocuments.aspx>

APPENDIX A: ACRONYM LIST

| | |
|----------|--|
| AE | Acquisition Executive |
| ANSI/EIA | American National Standards /Electronics Industries Alliance |
| CAM | Control Account Manager |
| CAP | Corrective Action Plan |
| CAR | Corrective Action Request |
| CD | Critical Decision |
| CIO | Continuous Improvement Opportunity |
| CO | Contracting Officer |
| CPR | Contract Performance Report |
| DOD | Department of Defense |
| DOE | Department of Energy |
| EAC | Estimate at Completion |
| EFCOG | Energy Facility Contractor's Group |
| EV | Earned Value |
| EVM | Earned Value Management |
| EVMS | Earned Value Management System |
| EPASOP | EVMS Project Analysis Standard Operating Procedure |
| ESSOP | EVMS Surveillance Standard Operating Procedure |
| FAR | Federal Acquisition Regulations |
| FPD | Federal Project Director |
| GAO | Government Accountability Office |
| IEAC | Independent Estimate at Completion |
| IFF | Interview Findings Form |
| IMS | Integrated Master Schedule |
| LOE | Level of Effort |
| MR | Management Reserve |
| NDIA | National Defense Industry Association |
| O | Order |
| OAPM | Office of Acquisition and Project Management |
| OMB | Office of Management and Budget |
| PARS II | Project Assessment and Reporting System II |

| | |
|------|-----------------------------------|
| PEP | Project Execution Plan |
| PMB | Performance Measurement Baseline |
| PMSO | Project Management Support Office |
| POC | Point of Contact |
| RFC | Review for Cause |
| SOP | Standard Operating Procedure |
| SOW | Statement of Work |
| SSR | Standard Surveillance Report |
| TPC | Total Project Cost |
| UB | Undistributed Budget |

APPENDIX B: LIST OF TEMPLATES

Additional guidance and templates referred to or supporting this SOP are available at:

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

Note: Templates on the website may be added, deleted, or updated based on need.

Document Request Log

EVMS Risk Matrix Template (OAPM)

EVMS Stage 3 Inbrief

EVMS Stage 3 Outbrief

EVMS Surveillance Checklist

EVMS Surveillance Report

EVMS Review Feedback Form

Guideline Evaluation Forms

Guideline Templates

Interview Finding Form (IFF)

Notification of Stage 2

Notification of Stage 3

Review Documentation Requirements for EVMS Reviews

Risk Matrix Update Email

Stage 2 Data Traces

Stage 2 EVMS Data Call

Team Handbook Stage 3