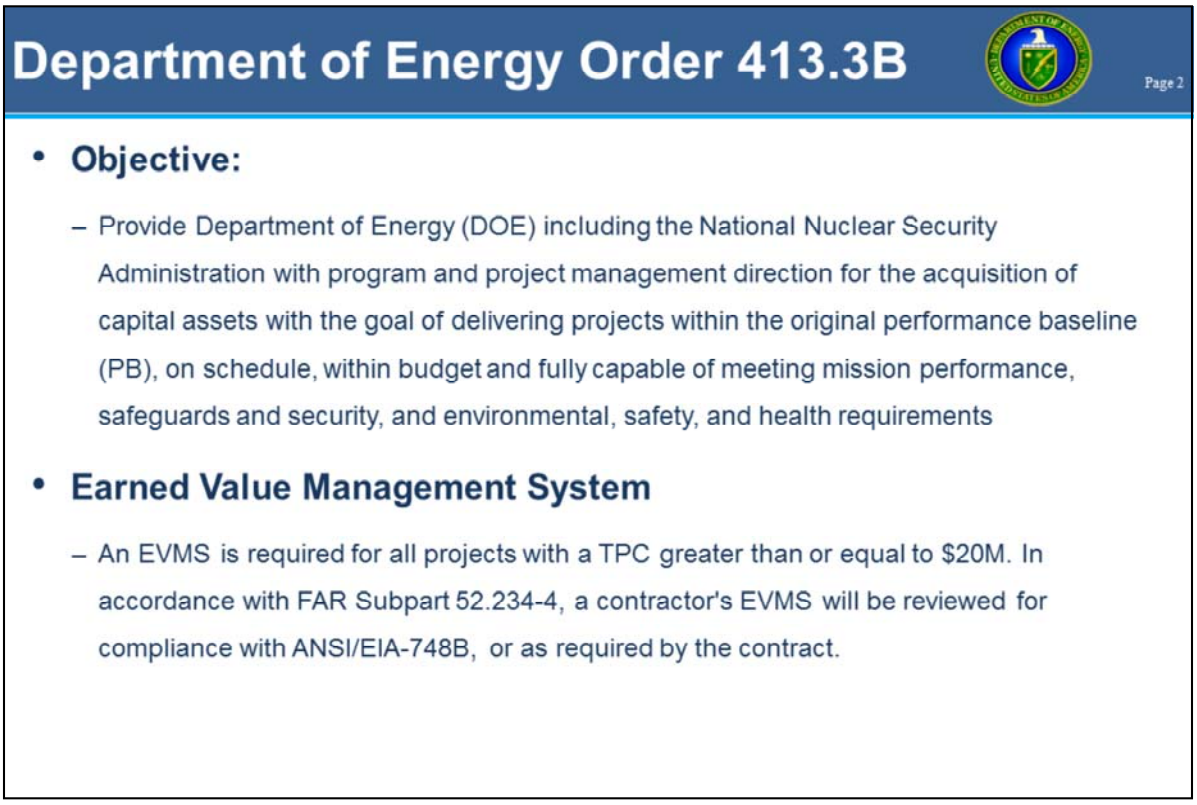
This EVMS Training Snippet, sponsored by the Office of Acquisition and Project Management (OAPM), covers the Department of Energy's policy relative to Earned Value Management.



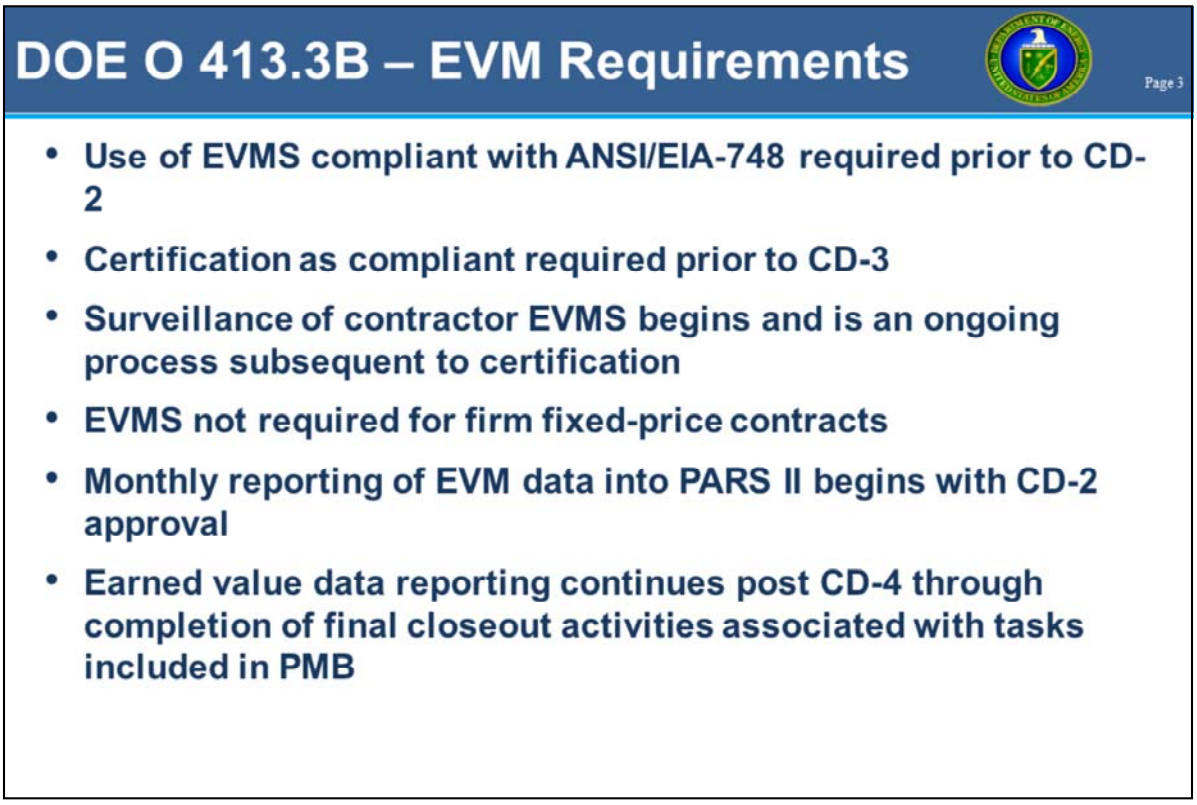
In the Department of Energy, an “Order” is a mandatory policy unless a waiver is granted. In November of 2010, DOE Order 413.3B was issued to provide program and project management direction for the acquisition of capital assets. Capital assets are land, structures, equipment and intellectual property, which are used by the Federal Government, and have an estimated useful life of two years or more.

The policy implements the Office of Management and Budget Circular A-11, Part 7, Capital Programming Guide which prescribes requirements and leading practices for project and acquisition management.

The Order applies to capital asset acquisition projects with a Total Project Cost greater than or equal to $50 million dollars, under the purview of DOE elements such as the Offices of Science, Environmental Management, and Energy Efficiency & Renewable Energy as well as the National Nuclear Security Administration.

However, an EVMS is required for all projects with a Total Project Cost (TPC) greater than or equal to $20M. In accordance with FAR Subpart 52.234-4, a contractor's EVMS will be reviewed for compliance with ANSI/EIA-748B, or as required by the contract. In addition, reporting of Earned Value data into PARS 2 is required for all non-fixed price, post CD-2 projects with a total project cost greater than or equal to $20M.

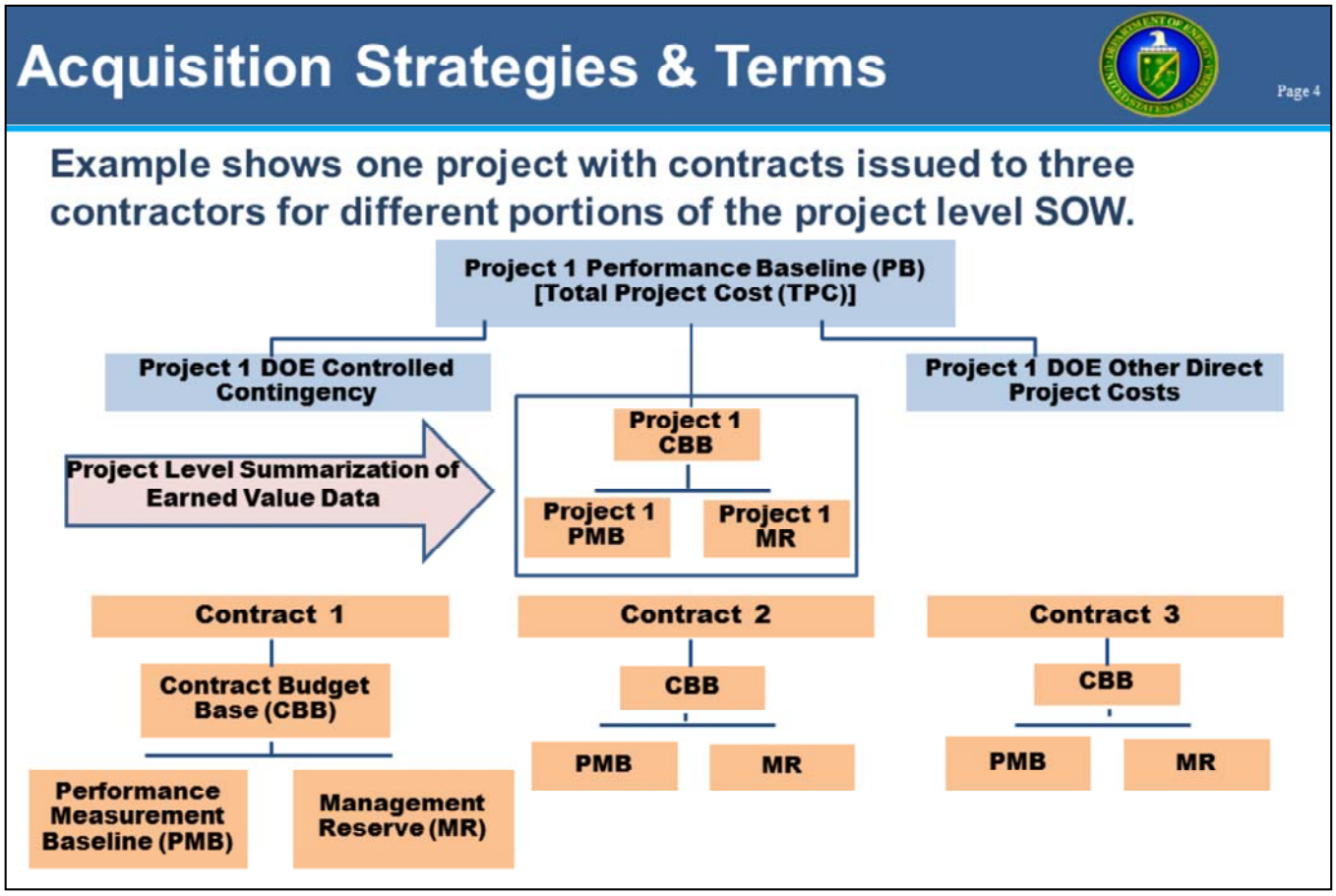
Attachment 1 to the Order is a Contractor Requirements Document that must be included in all capital asset acquisition contracts and established DOE contractor compliance responsibilities.



This slide summarizes the DOE O 413.3B EVMS requirements and where they may tie to Critical Decision Milestones.

CD-2 is the point where the project's Performance Baseline is established. Prior to this point, the contractor must begin using an EVMS compliant with ANSI/EIA-748 for all projects with a TPC greater than or equal to $20M, and then begin reporting EVM data into PARS 2 upon CD-2 approval. If the contractor's EVMS has not been previously certified as compliant with ANSI/EIA-748, the Certification process must be completed prior to CD-3. Once the contractor's system is certified, EVMS surveillance by the certifying authority begins.

Earned value reporting ceases when all the activities in the PMB have been completed and the costs reported. This occurs soon after CD-4, which denotes Start of Operations or Project Completion.



To further explain terms such as TPC, PB, and PMB, two acquisition examples are provided for orientation purposes (one on this slide and the second on the following slide). In DOE, the EVM-related policies, guidance, and procedures refer to these components.

The Performance Baseline includes the project scope and key performance parameters (KPPs), CD-4 project completion date and TPC. The TPC reflects the amount of funding necessary to complete the project including fee, DOE contingency, etc. and represents DOE's commitment to Congress. The DOE Order establishes requirements and thresholds based on the Total Project Cost, not at the contract price. The relationship is not always one contract per project.

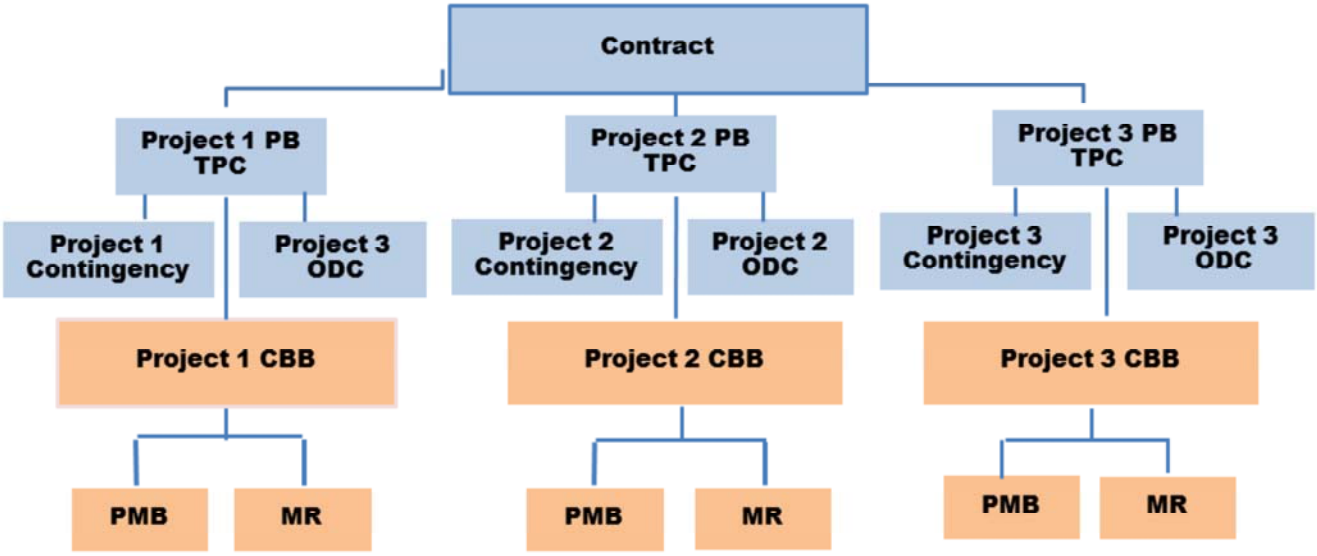
In addition to the Project's Performance Baseline, there is a Performance Measurement Baseline (PMB) which is the point where the contractor manages and reports earned value data against the baseline budget that encompasses all project work packages and planning packages. The PMB is derived by summarizing all of the time-phased budgets in the contractor's Work Breakdown Structure elements. The PMB is the benchmark used within the EVM systems to monitor project (and contract) execution performance. Management Reserve is the amount of contract budget withheld for management control purposes by the contractor. Management Reserve is not part of the PMB.

In the case of this example, there are three contracts under one project. Each of the prime contractors must be certified as having a compliant EVMS, and use and maintain that system for management and reporting purposes. In terms of reporting, each prime contractor may need to report their data individually into the Project Assessment and Reporting System, referred to as PARS 2, DOE's central data repository for project level and contract level performance. One of these primes or another contractor designated by

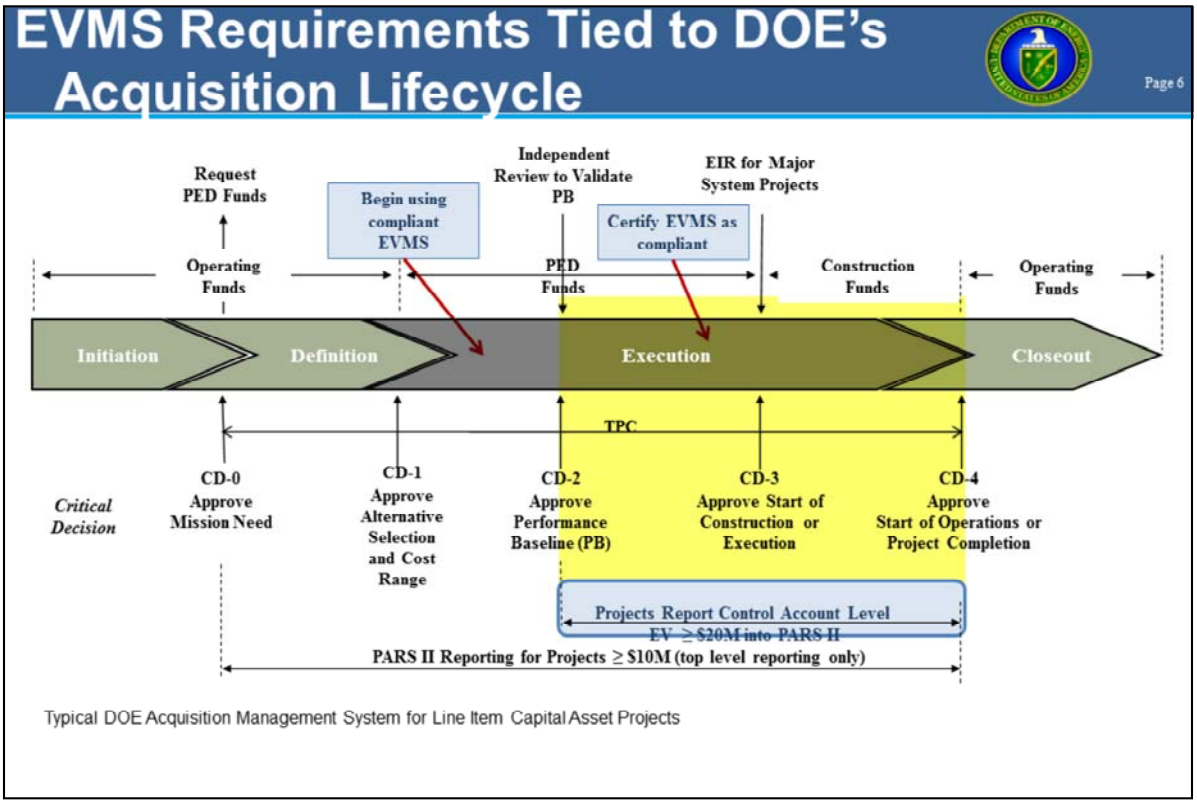
DOE will integrate the contract level data in PARS 2 to show earned value data at the Project Level. This provides insight into both individual contractor performance and into project level status.

Acquisition Strategies & Terms

This example shows one contract issued that covers more than one project. Note the TPC is still at the project level, regardless of the position of the contract.



In the second example, we see three projects under one contract. The DOE Contract Budget Baseline (CBB) is always at the Project cost level, not at the contract price. In terms of reporting, the contractor uploads its earned value data by project, not by contract, into PARS 2.



The DOE acquisition lifecycle is broken down into five Critical Decision milestones (0 through 4). PARS 2 reporting is required for projects greater than or equal to $10M to $20M at the total project level from CD-0 through CD-4. A project level performance baseline is established at CD-2 at which time contractors must begin reporting Earned Value Management data into PARS 2 from CD-2 through CD-4 at the control account level, for projects greater than or equal to $20M (see area highlighted with yellow background).

Certifying Authority responsibility is based on a hierarchy. A contractor with a project or portfolio of projects where any single project has a TPC equal to or greater than $100M is certified by OAPM. A contractor with a project or portfolio of projects where any single project has a TPC equal to or greater than $50M but less than $100M is certified by the PMSO. A contractor may self-certify if the TPC of all individual projects in its portfolio is equal to or greater than $20M but less than $50M.

However, should the initial certification be based on a lower level certifying authority and a project is later awarded in a higher threshold, the applicable certifying authority may conduct a review to ensure compliance. For example, let's say the initial certification was for a project with a TPC between $20 - $50M, and the certification was conducted via contractor self-certification. Later the contractor is awarded a project with a $200M TPC. OAPM may conduct a review of the EVMS. In any case, the higher certification supersedes in any conflict. For example, PMSO certification outweighs that of contractor self-certification. The EVMS hierarchy highest to lowest is OAPM, PMSO and then contractor self-certification.

For a Major System Project, those being projects with a TPC equal to or greater than $750M, an OAPM review is mandatory if prior certification was conducted by self-certification or the PMSO.

For firm fixed-price contracts a performance measurement system is required. If an ANSI/EIA-748 compliant EVMS is not used, an alternative performance management system must be approved by the Acquisition Executive (AE). Prime contracts that are Firm Fixed-Price efforts do not have EVM reporting requirements.

EVMS Surveillance Requirements

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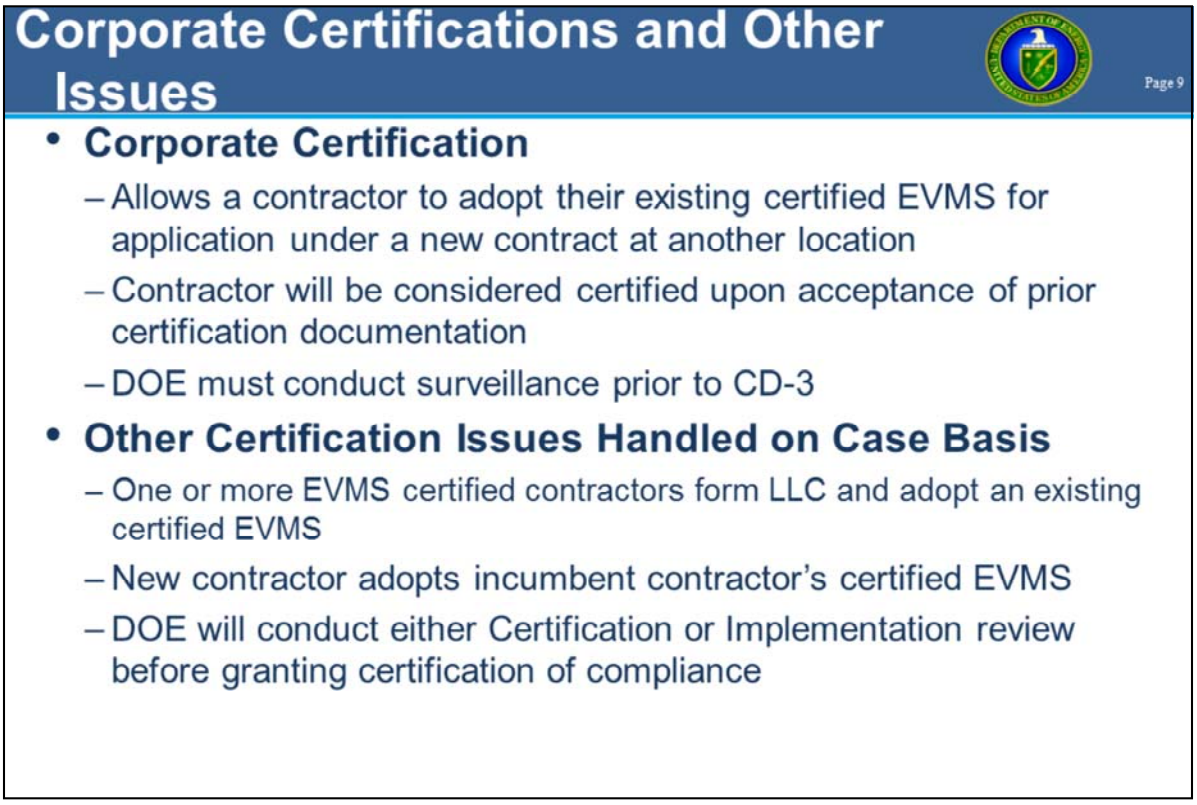
- **Conducted to ensure continued compliance of certified contractor systems**
- **Surveillance Authority and Thresholds**
  - Consistent with Certifying Authority Thresholds
  - OAPM ≥ $100M;
  - PMSO ≥ $50M < $100M;
  - Contractor self-surveillance ≥ $20M < $50M

- **Frequency:**
  - Contractors must conduct annual self-surveillance of their EVMS, ideally by an entity independent of the contractor's project team.
  - OAPM or PMSO must conduct surveillance no later than the contract midpoint or every 2 years, during contract extensions, or as directed by the Acquisition Executive

Surveillance of a certified system is conducted to ensure continued compliance. Surveillance thresholds and authorities are consistent with the certifying authority thresholds. Note that consistent with the discussion on the previous slide, it is entirely possible that the certifying authority for surveillance is higher than the certifying authority of the initial project in a contractor's portfolio. For example, if the certifying authority on the initial project was the PMSO, but now the contractor has one or more projects greater than $100M, OAPM is responsible for the surveillance.

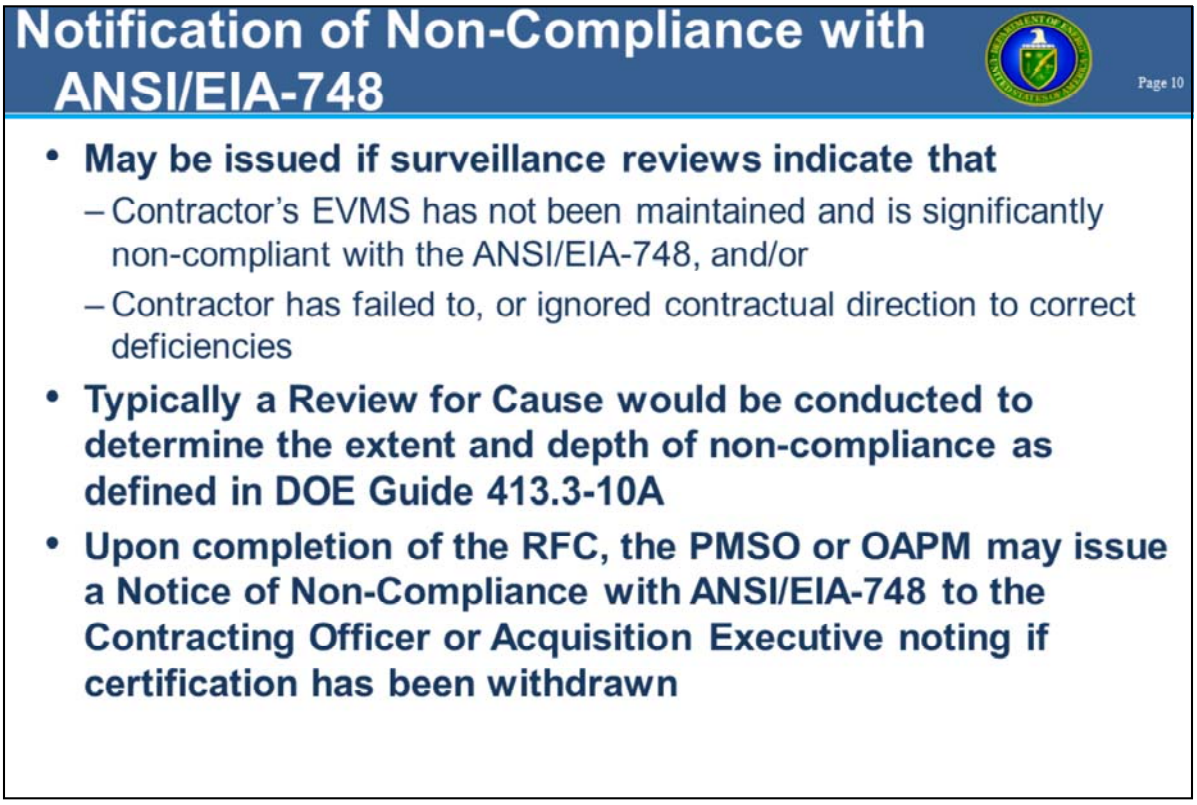
DOE O 413.3B requires that each certified contractor conduct annual self-surveillance of their EVM system. The order recommends that the surveillance be conducted by an entity independent of the contractor's project team to avoid any conflicts of interest. Examples of independent surveillance teams may include an internal audit group or an outside source.

OAPM or the PMSO must conduct surveillance no later than the contract midpoint or every 2 years for multi-year contracts, during contract extensions, or as directed by the Acquisition Executive. OAPM is using a risk based, data driven approach to surveillance which establishes surveillance triggers based on monthly data. This process is covered in more detail in the Surveillance Snippets.



DOE Order 413.3B allows a contractor to adopt its existing DOE-certified EVMS for application under a new contract at another location. For a pre-existing certified EVMS to be considered, the contractor must provide the prior certification documentation to the responsible DOE certifying organization. The Certifying Authority must conduct a surveillance review prior to CD-3.

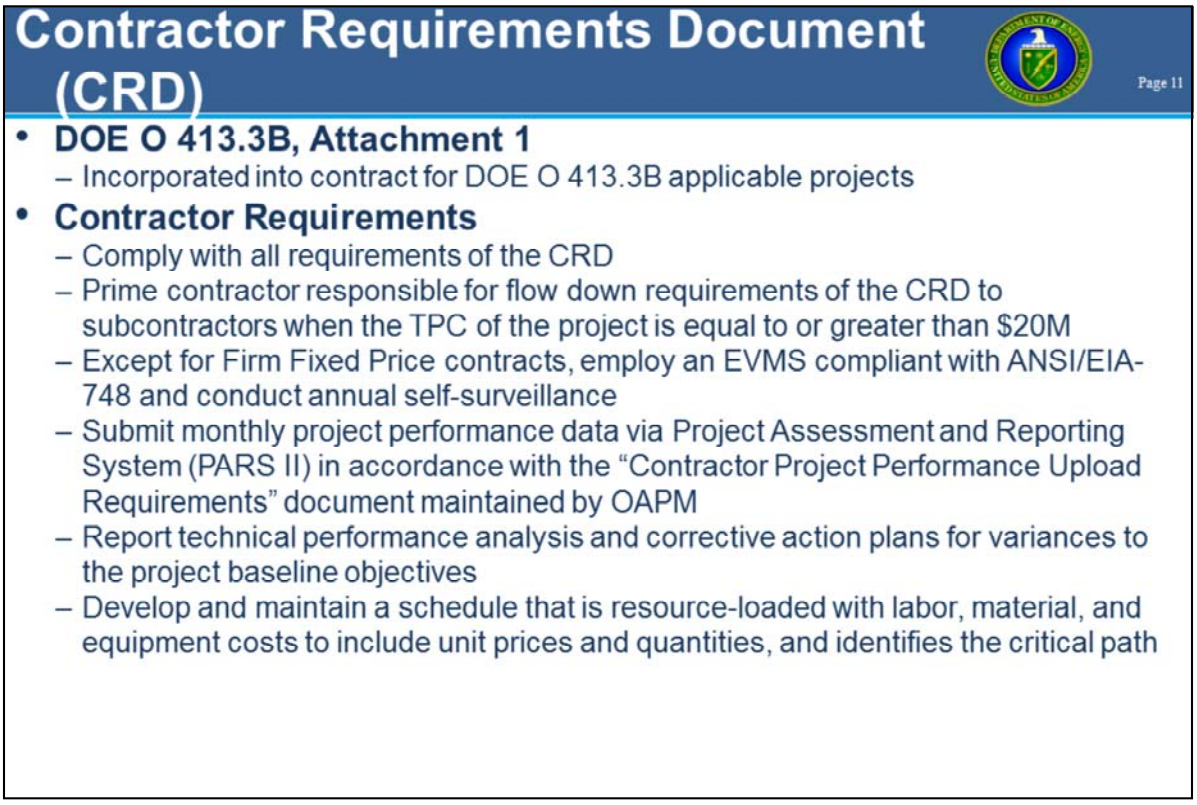
Other certification issues will be handled on a case by case basis such as one or more EVMS certified contractors form a Limited Liability Corporation (LLC) and adopt an existing certified EVMS, or a new contractor adopts the incumbent contractor's certified EVMS. DOE will conduct either a certification or an implementation review before granting a certification of compliance.



Should surveillance indicate a contractor's EVMS system has not been maintained and is significantly non-compliant with the ANSI/EIA-748, and/or the Contractor has failed to, or ignored contractual direction to correct deficiencies, the Certifying Authority may issue a notification of non-compliance. Typically a more in-depth review called a Review for Cause will be conducted to determine the full extent of non-compliance. Note: The Review for Cause is further defined in DOE Guide 413.3-10A.

Upon completion, the Certifying Authority will determine if compliance has been demonstrated, and if not, determine the path forward which may include withdrawal of the Certification of compliance for the contractor's EVMS.

The Certifying Authority works closely with the Government Contracting Officer (CO) through this process given that the withdrawal puts the contractor in a position of non-compliance to the terms and conditions of the contract, and the possibility that sanctions or contractual remedies may result. Nonetheless, the Certifying Authority as the EVMS Subject Matter Expert has final determination on the compliance status of a contractor's EVMS and determination to grant or withdraw a system certification.



The Contractor Requirements Document (CRD) is incorporated into all DOE O 413.3B applicable contracts. Shown here are the CRD's EVMS related requirements. Contractors must comply with all the requirements of the CRD. If a prime contractor is executing any project with a TPC equal to or greater than $20M, the prime is responsible for flow down of appropriate EVMS requirements to subcontractors.

As previously mentioned, contractors must employ an EVM system compliant with ANSI/EIA-748, conduct annual self-surveillance, and upload EVMS data monthly into DOE's Project Assessment and Reporting System, referred to as PARS 2 as applicable.

The contractor must report technical performance analysis and corrective action plans for variances against the project baseline objectives. Lastly, the contractor must develop and maintain a schedule that is resource-loaded and identifies the critical path.

DOE EVM-Related References

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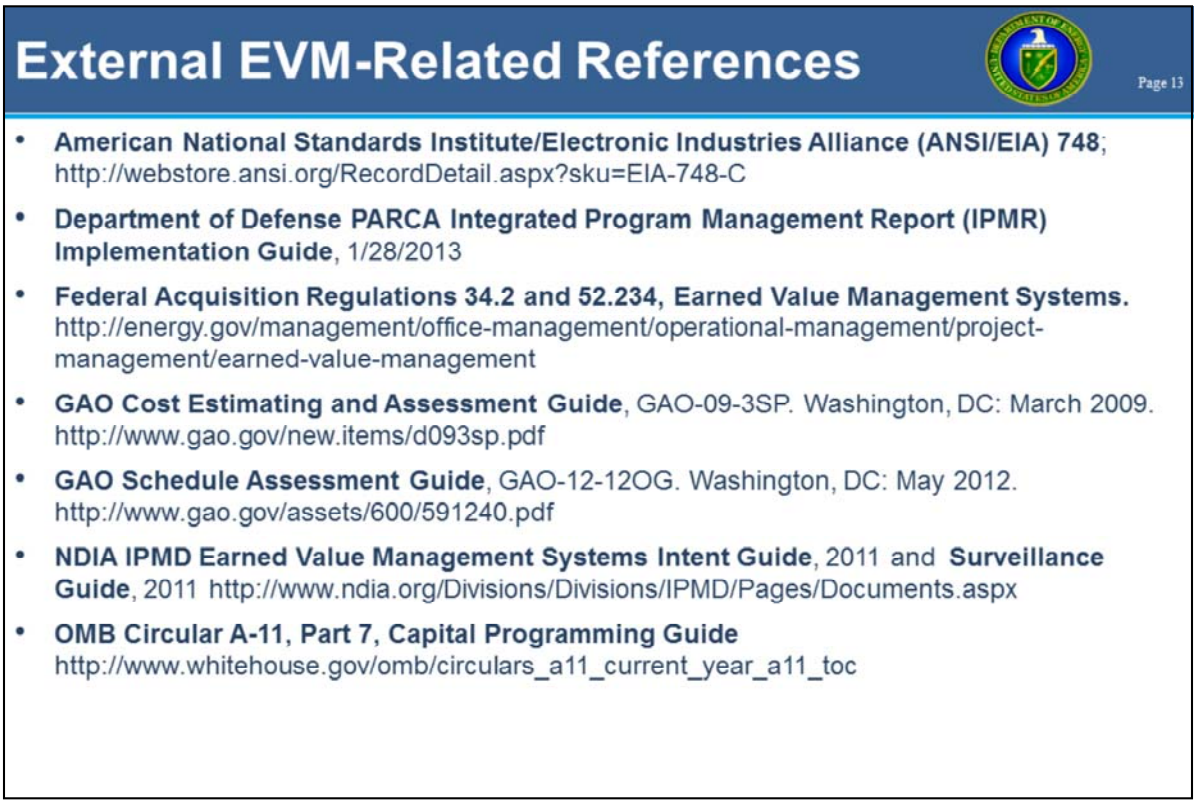
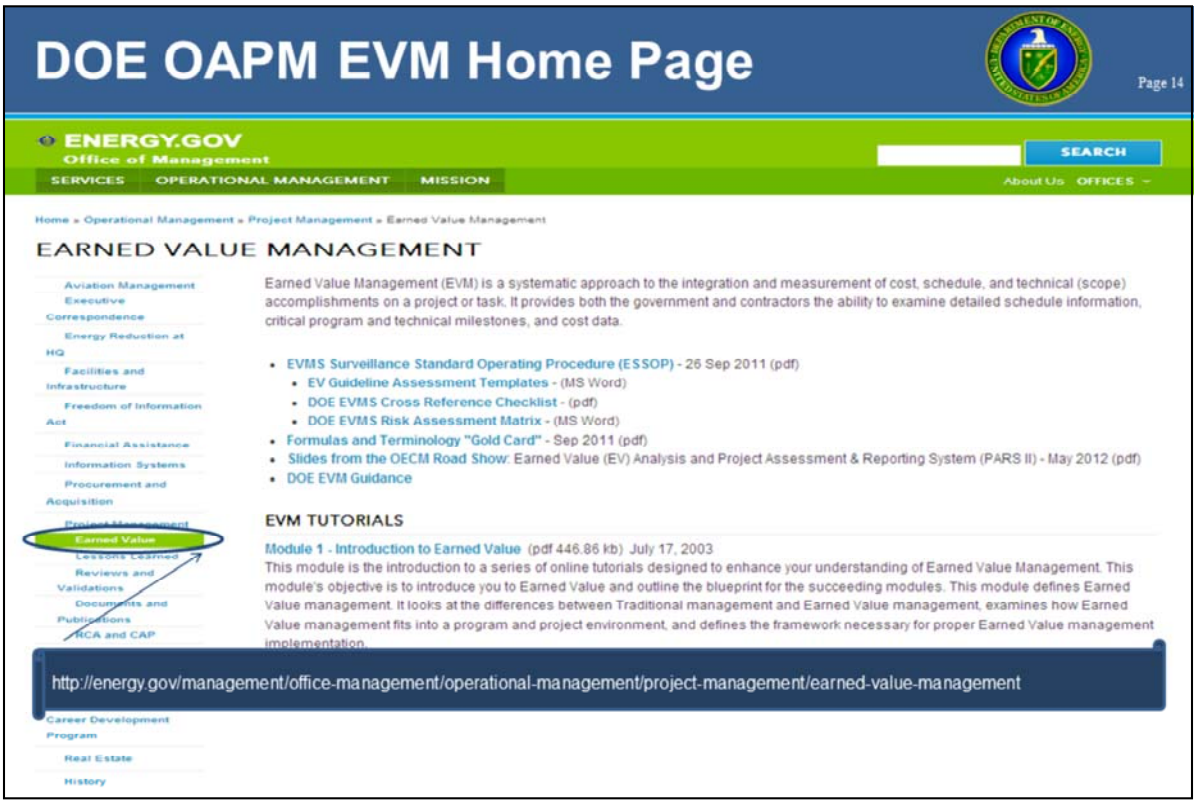
- **DOE, Program and Project Management for the Acquisition of Capital Assets, DOE O 413.3B**, Washington, DC: 11-29-2010. https://www.directives.doe.gov/directives/current-directives/directives-current-400-series (Same link for Guides)
- **DOE Guide 413.3-7A, Risk Management**
- **DOE Guide 413.3-10A, Earned Value Management Systems**
- **DOE Guide 413.3-20, Change Control Management**
- **DOE Guide 413.3-21, Cost Estimating Guide**
- **DOE Office of Management, Project Management, Earned Value Management website**. http://energy.gov/management/office-management/operational-management/project-management/earned-value-management
  - **DOE OAPM, EVMS Surveillance Standard Operating Procedure (ESSOP)**
  - **DOE OAPM, EVMS & Project Analysis Standard Operating Procedure (EPASOP)**

As we reach the conclusion of this training, the next three slides provide references. Here we show a list of Department of Energy Earned Value Management related policy, guidance, and procedural information along with the websites.



The internet is a great source of reference materials, but those listed on this slide are the most commonly used references from external sources when dealing with DOE projects. DOE participated in the development of many of these Guides.



For information relative to EVMS procedures, templates, helpful references, and training materials, please refer to OAPM's EVM Home page. Check this page periodically for updated or new information.

Thank you