

**FRA EVMS Documentation Updates
14-Aug-2013**

Topic	Docs Updated	Sections Updated	Revision Summary	Revision Details	Related to
ETC/EAC	SD, MSR Procedure	EVMS-SD section 5.2.6 PM-006 section 4.5	<ul style="list-style-type: none"> -Included formulas used by DOE APM for IEACs, but stress that EACs should never entirely be a calculated number. -Lists some factors for consideration in updating ETC, e.g. experience, risks, new rates, accruals etc. -Prescribes monthly review and updates, annual total project bottom-up revision, and other updates as needed. 	<p>Added to EVMS-SD section 5.2.6</p> <p>“Control Account Managers periodically develop a comprehensive EAC at the Control Account level using all available information to arrive at the best possible estimate. All of the following may be employed to develop the EAC.</p> <ul style="list-style-type: none"> -Evaluating the efficiency achieved by performing organizations for completed work and comparing it to remaining budgets. -Establishing a schedule forecast that reflects the expected time-frame for completing the remaining work. -Considering all remaining risk areas on the project versus cost avoidance possibilities. -Ensuring the most current direct and indirect rate structure is used to price out the projected resources. -Applying this analysis to future efforts to derive the most accurate estimate. <p>An EAC based on predictive performance measures increases the probability that the project is executed within the overall budget objectives. Monthly EAC reviews are essential for management decisions including the planning of project future funding requirements. On a monthly basis, CAMs review the status of expended effort and the achievability of the remaining forecasted work using all available information to arrive at the best possible EAC.</p> <p>Comparisons of the EAC to the BAC must be made frequently enough for management to ensure project performance and resource availability is not adversely impacted. Routine EAC analysis and review at the Control Account level by the CAM ensures that the EAC continuously reflects a valid projection of project costs. Developing estimates at completion involve multiple methods. No single method consistently provides the “best answer.” EACs should never entirely be a calculated number. Formula driven Estimates at Completion are used only as a means of verification or validation that an EAC is reasonable. The uncompleted baseline schedule activities the resources required to complete each activity must be assessed in generating the EAC.</p> <p>PM-006 section 4.5 also updated extensively</p>	2012 CAR-01, NOVA Cost to Complete Assessment Dec.2012
				<p>Added to EVMS-SD section 6.1.5 “Administrative changes such as changes to the project organization or project management personnel including CAMs shall be subject to the change control process. Internal replanning is intended for in-scope changes that relate to future work, i.e. work to be performed in the current performance period and beyond.</p>	

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Change Requests	SD, Change Control	EVMS-SD section 6.1.5 PM-007 section 4.1	<ul style="list-style-type: none"> -Reinforced that only changes to future work are permitted. Start dates can only be changed in future periods. -Reinforced that entire approval process from PEP must be complete before implementing changes. -Added changes to the project organization to the types of changes to be processed. -Added that changes to collaborator SoWs may be required as a result of approved project changes. 	<p>Internal replanning efforts are allowed on open work packages as long as the past portion of the work already completed is not affected. All changes to the baseline are documented in a change request (CR) and retained in project files. Changes shall not be implemented until the approval process described in the PEP has been completed. Approved changes are incorporated into the performance measurement baseline in a timely manner, usually before the end of the next reporting period.”</p> <p>Added to PM-007 section 4.1 “Changes shall not be implemented until the approval process described in the PEP has been completed. Approvals may be obtained by signature or electronic means.”</p> <p>And following was updated in section 4.1 “Internal replanning efforts are allowed on open work packages as long as the past portion of the work already completed is not affected. Retroactive changes to the previously reported BCWS, BCWP, and ACWP are prohibited, except for the correction of errors. Accounting adjustments must be made in the current period, in accordance with financial accounting procedures. Only the future portion, i.e. portion of work to be performed in the current performance period and beyond, of open work packages may be changed. And following was added to list of typical changes: “Changes to Project Organization and/or personnel including Project Management and CAMs.”</p>	2012 CAR-02
VARs	SD, MSR Procedure	EVMS-SD section 5.3.2 PM-006 section 4.2	<ul style="list-style-type: none"> -Added that a monthly calendar for internal and external reporting must be included in PMPs. -Added statement that VARs need to be descriptive enough to trigger action by the project -Clarified that CAMs cannot approve their own VARs 	<p>Existing EVMS-SD section 5.2.2 “Variance analyses allow control account managers to identify and communicate cost, schedule, and EAC divergences from the performance measurement baseline. Root-cause analysis is performed at the control account level at a minimum.”</p> <p>Added to EVMS-SD section 5.3.2 “In its Project Management Plan document each project must include a calendar for producing internal and external reports that allows for both quality checks and adjustments to the project plan. Typically external monthly reports are to be submitted to the customer no later than the last day of the month that follows the month in which the work was performed. The month in which the work was performed is also known as the reporting period. In order to meet this schedule, adjustments or validation of the RLS and ETC as well as processing of change requests must occur early in the cycle, most likely within the first 10 calendar days. Contract Performance Reports (CPRs) and Variance Analysis Reports (VARs) can then be produced and circulated to the project team and lab management for feedback before final submission to the customer.”</p> <p>Added to PM-006 section 4.2 “VARs need to describe the variance in sufficient detail such that appropriate actions can be undertaken by the project”</p>	2012 CAR-03
EV Measurement	SD	EVMS SD section 5.1.1	-Added that PMTs need to be assigned so objective measurements can be made at intervals no less than two months	Added to EVMS SD section 5.1.1 – “PMTs should be applied such that objective measurements can be made at intervals no less than every two months on the activities to which they have been assigned”	2012 CAR-04

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Schedule Integrity	Scheduling	PM-004 section 4.1	-Listed characteristics of quality schedule including maintainability, transparency, traceability, valid critical path, justifications for constraints and lags	<p>Existing text in EVMS-SD section 3.4.1 “The Control Account Managers (CAMs) are responsible for the content and accuracy of their respective schedules.”</p> <p>Added to PM-004 section 4.1 “Project schedules should be prepared using standard scheduling best practices to ensure integrity and quality. Example characteristics of high quality schedules include maintainability, transparency, vertical and horizontal traceability, a valid critical path, documented justifications for constraints and lags, and reasonable values for floats.”</p>	2012 CAR-05
Accrual Process	MSR	PM-006	-Added CAM responsibility to provide input on accruals	<p>Existing text in EVMS-SD section 5.1.2.1 “Accruals are routinely added through Fermilab’s accounting system when the control account manager and/or project management determine that some accomplished work has not been invoiced in the month earned, through consultation with affected parties and with accounts payable.”</p> <p>Updated PM-006 to include following CAM Responsibility “Providing progress information to PC staff for input to the RLS for the monthly report and for accruals”</p>	2012 CIO-01
Major Subcontractors in OBS	WBS, OBS, RAM	PM-001 section 4.3	-Defined "major" subcontractor as lesser of \$5M or 5% of TPC	<p>Existing text in EVMS-SD section 2.3.1 “The OBS helps management focus on establishing the most efficient organization, by taking into consideration the availability and capability of management and technical staff, including subcontractors, to achieve project objectives.”</p> <p>Added text in PM-001 section 4.3 “Major subcontractors are to be included in the OBS in addition to internal project organizations. For the purposes of the OBS, a major subcontractor is defined as a contractor that is responsible for 5% or \$5M (whichever is smaller) of the project’s BAC.”</p>	2012 CIO-03
Cost Estimating	Cost Estimating	PM-005	-Restructured to match process outlined in DOE cost estimating guide -Updated estimate uncertainty contingency tables	PM-005 updated nearly in its entirety. Mostly the sequence was modified to match that described in the DOE cost estimating guide. Estimate Uncertainty tables updates in Appendices.	Publishing of DOE cost estimating guide

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Contingency and MR	SD, Change Control	SD Section 3.6.1, 5.6.2 PM-007 Section	-Aligned definitions of Cont and MR to DOE definitions. -Removed stipulation that Cont was for known risks and MR was for unknown risks	<p>EVMS-SD section 3.6.1 Contingency is an element of the approved Total Project Cost (TPC) that is identified early in the project development and provides budget that covers future known and unknown risks of the project, but is not part of the Performance Measurement Baseline. Initial contingency is calculated as TPC-BAC. Contingency remaining at any point in the project can be calculated as contingency = TPC – EAC. The contingency budget is identified by the customer and the project for managing known and unknown risks as well as directed scope changes. Known risks include both risks documented in the project risk register and inherent uncertainties in the project’s cost estimate. The total contingency amount may be set at the direction of the customer, or jointly between the customer and the Project Manager. It will be identified as a separate budget line in the EVMS reporting. The release of this budget is managed through the change control process and determined by approval thresholds defined in the PEP and PMP. The customer will determine the final disposition of any unused contingency as the project comes to completion. Management Reserve is the portion of the project budget allocated by the customer and under the authority of the project for management control purposes rather than being designated for the accomplishment of specific tasks. The customer will determine whether it will be used on each project and, if so, its purpose may also be pre-defined by the customer. It is not part of the Performance Measurement Baseline (PMB).</p> <p>EVMS-SD section 5.6.2</p> <ul style="list-style-type: none"> Contingency: The portion of the project budget that the customer holds in reserve to accommodate known risks as well as unknown risks that are within the scope of the project. It may also be used for additional scope and work that is necessary to meet current project mission requirements, but was inadvertently omitted but required. Contingency is not part of the PMB. Management Reserve: The portion of the project budget allocated by the customer and under the authority of the project for management control purposes rather than being designated for the accomplishment of specific tasks. Its purpose may also be pre-defined by the customer. It is not part of the Performance Measurement Baseline (PMB). 	Actual experience in how Cont/MR are implemented
PP->WP Conversion	CA, WP, PP		Planning packages will be converted to Work Packages 6 months prior to work, with provisions for some exceptions Updated 413.3A to 413.3B	<p>Added the following text to 12.PM-002 section 4.3 Conversion of planning packages to work packages should normally occur no later than six months before work is scheduled to begin, with exceptions for those procurements where terms are not known until nearer the time of the order and other special exceptions approved by the project manager and the Office of Project Support Services.</p>	Current projects developing their schedules
Miscellaneous	All		-Updated names of FNAL organizations (OPMO->OPSS etc) -Updated flowcharts, examples and templates in Appendices		