

FNAL EVMS Checklist Compliance

		Observations/Comments based on a review of the EVMS application on the NOVA Project.				
No.	EVMS Guideline	Certification Risk			Comments	Recommendations
		High	Medium	Low		
1	<i>Define the authorized work elements for the program. A WBS, tailored for effective internal management control, is commonly used in this process.</i>			X	WBS, WBS Dictionary and Work Authorization seem to be adequate.	Work Authorization signature process and requirements could be made clearer.
2	<i>Identify the program organizational structure, including the major subcontractors responsible for accomplishing the authorized work, and define the organizational elements in which the work will be planned and controlled.</i>			X	Organizations charts, OBS, etc. seem to be adequate.	
3	<i>Provide for the integration of the company's planning, scheduling, budgeting, work authorization and cost accumulation processes with each other, and, as appropriate, the program WBS and the program organizational structure.</i>			X	System Description describes this process adequately.	
4	<i>Identify the company organization or function responsible for controlling overhead (indirect costs).</i>	X			No documentation was available for review.	System Description and procedure must be enhanced to address the real issue: "how does FNAL plan and control indirect costs that will be applied to the project." Current documentation does not address the elements described in the NDIA Intent Guide.
5	<i>Provide for integration of the program WBS and the program organizational structure in a manner that permits cost and schedule performance measurement by elements of either, or both structures as needed.</i>		X		RAM is OK.	The lower level definition below the Control Account is somewhat undecided and confusing, particularly to the CAMs. OECM's direction to call the Cost Account the Work Package is confusing to the CAMs. OECM should not dictate the way the contractor's EVMS works nor terminology. The reason for the medium risk is tied to OECM's inappropriate direction, which, if ignored, could be an issue
6	<i>Schedule the authorized work in a manner that describes the sequence of work and identifies the significant task inter-dependencies required to meet the requirements of the program.</i>			X	OpenPlan detailed network schedule satisfies this requirement.	The extension of the plan for the Project Management Control Account beyond the end of the other Control Accounts needs to be reviewed and corrected. Suggest that the entire schedule be reviewed for "good scheduling practices" including but not limited to pred/succ relationships, hard constraints, float spikes, etc.
7	<i>Identify physical products, milestones, tech performance goals, or other indicators that will be used to measure progress.</i>		X		For the most part PMTs, as described, are satisfactory. Some questions re: commodity items planning before details are available.	Look to provide better substantiation for the reported percent complete at the activity/WP level. Though a relatively low percentage of WPs use the % complete PMT, OECM will find this an issue that must be corrected.

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8	<i>Establish and maintain a time-phased baseline at the control account level, against which program performance can be measured. Initial budgets established for performance measurement will be based on either internal management goals or the external customer-negotiated target cost, including estimates for authorized but undefined work. Budget for far-term efforts may be held in higher-level accounts until an appropriate time for allocation at the control account level. On government contracts, if an over-target baseline is used for performance measurement reporting purposes; prior notification must be provided to the customer</i>		X		Timephased budget based on resource loaded schedule that meets milestones is best practice. However, the practice of level loading BCWS will be found inappropriate for longer WPs. The BCWS should reflect the anticipated consumption of resources.	Creating the timephased budget baseline using resource loading at the network activity level is not only time consuming but makes budget changes difficult to incorporate. The use of linear timephasing is at times less than appropriate and not in keeping with the earned value measurement technique that has been chosen.
9	<i>Establish budgets for authorized work and identification of significant cost-elements (labor, material and so on.) as needed for internal management and control of subcontractors.</i>		X		Mixing of cost elements (labor, material & services) in single "Work Package" is inconsistent with the intent of EVMS	Consider separating the labor versus non-labor resources into unique WPs. Alternately, make an argument that supports how meaningful performance measurement is not compromised in the current approach. Or pull out the non labor resources and earn on a milestone basis.
10	<i>To the extent it is practical to identify the authorized work in discrete work packages, establish budgets for this work in terms of dollars, hours, or other measurable units. Where the entire control account is not subdivided into work packages, identify the far-term effort in larger planning packages for budget and scheduling purposes.</i>			X	All work is planned in Work Packages, some perhaps should be in Planning Packages until vendors are selected, etc.	Use Planning Package definition to simplify the situation. Until a vendor is selected and a delivery schedule is negotiated for each commodity, the details necessary for planning Work Packages isn't available.
11	<i>Provide that the sum of all work-package budgets, plus planning-package budgets within a control account, equals the control-account budget.</i>			X	Cobra ensures this.	This is normally demonstrated with the "Control Account Plan". Since this document doesn't exist in this system it is necessary for the Control Account Managers to explain which documents represent this plan. This must include; Identity of the Work Packages, timephased budget spread, and the measurement technique as a minimum.
12	<i>Identify and control level-of-effort activity by time phased budgets, established for this purpose. Only that effort that is unmeasurable, or for which measurement is impractical, may be classified as level of effort</i>			X	All LOE work observed seems to be appropriately classified.	
13	<i>Establish overhead budgets for each significant organizational component of the company for expenses that will become indirect costs. Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned to be allocated to the program as indirect costs</i>		X		Discussions with CFO personnel were productive, but that discussion is not reflected in existing procedures.	Develop a more complete description of how overhead budgets are established and assigned to the organization.

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14	<i>Identify Management Reserves (MR) and undistributed budgets</i>		X		Undistributed budget is not used. There is some confusion re: Management Reserve vs. Contingency in relation to conventional EV practices.	This needs to be more clearly defined, perhaps in the in-briefing. Some form of Baseline Budget Log should be developed to record the current PMB and CBB for reconciliation with the total Cobra budget.
15	<i>Provide that the program target cost goal is reconciled with the sum of all internal program budgets and management reserves.</i>			X	The BCWS in Cobra plus Contingency reconciled directly to the TPC identified in the PEP.	There is a need for a Baseline Budget log. See above.
16	<i>Record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account.</i>		X		Direct costs for labor are not collected in the same categories that are used for budgeting. Comparison is only possible at a summary level of the budgeted	
17	<i>When a WBS is used, summarize direct costs from control accounts into the WBS without allocation of a single control account to two or more WBS elements.</i>			X	This is done by Cobra.	
18	<i>Summarize direct costs from the control accounts into the contractor's organizational elements without allocation of a single control account to two or more organization elements.</i>			X	WBS makes this clear.	
19	<i>Record all indirect costs that will be allocated to the contract.</i>			X	Indirect costs are recorded consistent with the general books of accounts in the FNAL accounting system.	
20	<i>Identify unit costs, equivalent unit costs, or lot costs when needed.</i>			X	NA	
21	<i>For EVMS, the material accounting system will provide for: 1) Accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable, costing techniques. 2) Cost performance measurement at the point in time most suitable for the category of material involved, but no earlier than the time of progress payments or actual receipt of material. 3) Full accountability of all material purchased for the</i>		X		Material costs are recognized at the point of receipt / acceptance. An accrual system is available to record actuals in advance of this point. This accrual process will be tested for strength since most University costs will need to be accrued to avoid invoicing lags.	Documented procedures are required for the services accruals. This process is complicated and needs to be documented.
22	<i>At least on a monthly basis, generate the following information at the control account and other levels, as necessary for management control, using actual cost data from, or reconcilable with, the accounting system: 1) Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance. 2) Comparison of the amount of budget earned and the actual (applied where appropriate) direct costs for the same work. This provides for the cost variance.</i>		X		Done in Cobra. Furnished to CAMs in CPR Format 1 and Format 5 reports.	Do not include any measurement techniques that aren't planned to be used (specifically, Apportioned Effort). Where the %complete technique is used, document the basis for the % complete for longer WPs. Each Control Account Manager needs to have a timephased budget at the work package level to understand the timephasing of the summary budget. Guard against the use of poor methods to measure percent complete (i.e. using actual cost to determine percent complete).

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23	<i>Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for variances, in the detail needed by the program management.</i>			X	Differences identified in reports described above. Analysis provided when thresholds are exceeded by CAMs on Format 5.	There should be a "standard" set of reports furnished to the Control Account Manager. This should include; W.A., timephased budget at Work Package level, schedule data at Work Package level, and CA performance [preferably by element of cost].
24	<i>Identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with reasons for any significant variances.</i>		X		For those positions identified as being responsible for planning and control of indirect pools, reports need to be generated that identify budgeted versus actual cost, by element of cost.	
25	<i>Summarize the data elements and associated variances through the program organization and/or WBS to support management needs and any customer reporting specified in the contract.</i>			X	WBS summary provided by Cobra.	The use of the three month moving average should be abandoned and removed from the data and procedures.
26	<i>Implement managerial actions taken as the result of earned value information.</i>			X	VAR Review process is OK as reviewed. CAM analysis is relatively mature and complete given how long EVM has been implemented on the project.	The thresholds being used are too loose, relative to what OEMC typically sees. Also, we recommend that there should be absolute dollar thresholds as well (to avoid very small variances being analyzed and very large ones being ignored). Also, there needs to be a Corrective Action log to record and follow up on corrective actions identified in Variance Reports.
27	<i>Develop revised estimates of cost at completion based on performance to date, commitment values for materials, and estimates of future conditions. Compare this information with the PMB to identify variances at completion important to company management and any applicable customer-reporting requirements, including statements of funding requirements.</i>	X			ETC/EAC process needs to be flushed out and Cobra's EAC calculation needs to be turned off. Process flow needs to be worked out and training is necessary.	A proper technique needs to be developed and implemented to forecast future costs at the Control Account level. At a minimum, turn off the confusing formula being used by Cobra. Clearly, more training is needed to clarify the difference in making a forecast and changing budget / funding.
28	<i>Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules. In the directed effort prior to negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.</i>			X	Change Request process appears to be working. May become constraining if volume increases greatly. Need method to avoid higher level review of minor [within tolerance] changes within a single CA.	The process may allow these minor adjustments now, but it isn't clear to the Control Account Managers. You will need a way to allow the Control Account Manager to make minor adjustments without the need for a C.R.
29	<i>Reconcile current budgets to prior budgets, in terms of changes to the authorized work and internal replanning in the detail needed by management for effective control.</i>		X		Change Request log and discipline provides solution to this guideline.	Some form of budget log needs to be established to provide this reconciliation over time.

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30	<i>Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments should be made only for correction of errors, routine accounting adjustments, effects of customer or management-directed changes, or to improve the baseline integrity and accuracy of performance measurement data.</i>			X	The necessary disciplines described in existing processes will satisfy this requirement.	
31	<i>Prevent revisions to the program budget, except for authorized changes.</i>			X	C.R. process does this.	
32	<i>Document changes to the performance measurement baseline (PMB).</i>		X		The Change Request process accomplished this guideline.	The Work Authorizations should be updated to incorporate the approved results of each W.A. Also, there needs to be a Performance Measurement Baseline log maintained to record the results of the approved Change Requests.