

BNL / BSA Earned Value Management System Certification Review

Corrective Action Plan Status

May 23, 2008

Revision 6

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
	<p>at a minimum, then as a minimum, this practice should be described in the change control, scheduling and estimating procedures.</p> <p>The CFN escalated dollars at the time of CD-2 approval and therefore subsequent changes or time-phasing changes do not reflect the impact of the change as a result of escalation per the practice of the CFN team. Although 12 BCPs have been approved and implemented into the PMB, the PMB total has not changed by one cent over 4 years. During July a reduction of 557K of BCWS for WBS Element 1.2.7, CFN End Stations at NSLS, the BCWS was re-planned (reduced CTD VAR and re-spread remaining BCWS over the remainder of the fiscal year and into the next (FY 2008) in the PMB. The portion re-spread into FY 2008, should have resulted in a budget increase due to escalation.</p> <p>In summary COBRA has the ability to maintain a lifecycle current year estimate and correctly apply escalated values based on the original baseline and subsequent change requests. The NSLS project plans to use this system. The BGRR baseline only spans two years and therefore the P3 system currently in use is adequate, however, if the other environmental projects are planned in the system, the method to use P3 should be described in the procedures and manuals. The CFN process should be discouraged.</p>		<p>in the EM program procedures, if not already documented.</p>			

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CAR 4 Minor	<p>Direct versus Indirect Charges CFN Project, WBS 1.1, 1.2, 1.3 and 1.4</p> <p>The distinction of what constitutes an appropriate overhead or indirect service to the project does not seem well defined. The disclosure statement for groups like ESH&Q and other technical support (e.g., engineering) is at a summary level and does not provide the project sufficient guidance for planning purposes. This was apparent in the CFN project where the overhead functions requested the addition of specific schedule items (Test Plans and Permits) at the equipment level to allow for proper planning and tracking. These activities contained no budget as it was explained that these were already covered in the overhead budget. These appear to be project specific deliverables and not site-wide supporting documents.</p> <p>The project also processed a BCP, BCP 09-04-02, which reduced project related costs and allowed for an increase to the Construction budget without increasing the Total Project Cost. The BCP explains that certain engineering and R&D costs associated with the facility and impacts of the facility on site-wide systems may in some cases "don't contribute materially to the value of the CFN project" or the value to the project "will benefit multiple research programs". Based on this these costs were either transferred outside of the project to "other operating accounts" or "G&A". Although it appears that these activities would not have been required in the absence of a CFN project, therefore required in support of the project, and that the original CD-2 estimated these as project related costs, the disclosure statement and/or estimating procedure is not clear on establishing budgets in this area.</p>	#16	<p>4.1. Review EVMS Program Description, Section 3, "Accounting" to ensure it, and the referenced documents, adequately define what constitutes an appropriate Laboratory overhead or indirect service to a project.</p> <p>4.2. The NSLS II project and EM projects (D&D of the BGRR) should ensure that planned budget shall not be taken out of the project and the related scope assigned to a lab-wide overhead pool.</p> <p>4.3. Guidance on the application of direct vs. overhead resources is explicit in Generally Accepted Accounting Principles (GAAP) and applicable Cost Accounting Standards. These are referenced in the BNL Cost Accounting Standards Board Disclosure Statement.</p> <p>The BNL Budget Office staff will review the (1) BNL Disclosure Statement and (2) other pertinent BSA/BNL accounting policies and procedures to ensure they provide appropriate guidance re: allocating project budgets to direct vs. overhead funding sources. The guidance shall be in accordance with Cost Accounting Standards and EVMS principles.</p> <p>4.4. The following requirements will be added to the EVMS Program Description, paragraph 3.2.2: "The designated budget representative shall review the performance measurement baseline (PMB) and all baseline change proposals (BCPs) to ensure that cost accounting standards are followed. It is the responsibility of the</p>	Melucci	11/30/07 Completed 11/9/07	R. Melucci reviewed EVMS Program Description, Sect. 3, "Accounting" and found it "adequate". See his e-mail to Murphy dated 11/9/07.
				Dierker / Hill	12/31/07 Completed 11/1/07	Hill: BCWS related to EM projects is funded by operating dollars. Therefore, no project-related cost would ever be transferred by lab-wide overhead pools.
				Melucci	2/28/08 Completed 3/12/08	R. Melucci provided the following in his e-mail of 3/12/08: The Fiscal Officer, the CFO, and I have reviewed the Disclosure Statement and changes for the current year. It has been submitted to DOE. BHSO and CH have reviewed it. Comments have been received from CH via BHSO. Those comments will be addressed in a revision submitted by April 2008 for DOE's final approval.
				Murphy	1/31/08 Completed 3/11/08	Added the referenced language to Paragraph 3.2.2.

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
			<p>designated budget representative to ensure that the application of direct vs. overhead resources are handled in accordance with Generally Accepted Accounting Principles (GAAP), applicable Cost Accounting Standards and the BNL Cost Accounting Standards Board Disclosure Statement.</p> <p>4.5 The following requirements will be added to the EVMS Program Description, paragraph 3.2.3, "Allocation of Indirect Costs to Projects".</p> <p>Large or highly specialized projects may require specifically tailored support services (differing from those normally provided to the Laboratory at-large). Extraordinary, dedicated levels of key support services may necessitate the project pay directly for these services. Other traditional support services may be provided to a much smaller degree, or they may not be provided to the project at all. Direct-funded support services and/or reduced support services may justify use of either BNL's Extraordinary Construction Rate, or a special G&A rate developed for the specific (i.e., very large) project.</p> <p>Project support services shall be planned into the project management baseline (PMB), including determinations as to whether they will be funded directly by the project (using direct project funding) or funded via the Laboratory through overhead (indirect) resources.</p> <p>Each BNL project with a TEC over \$50 million shall develop an "Assumptions Document" that will outline the programmatic scope, cost, schedule, and risk assumptions used in the development of the project management baseline (PMB).</p>	Murphy	3/31/08 Completed 3/11/08	<p>Added the referenced language to Paragraph 3.2.3.</p> <p>See NSLS-II Project CD-2 "Assumptions for the Cost Estimate and Schedule Preparations" dated 4/30/08. (Unsigned pending change board approval per D. Hatton.)</p> <p>See EM "General Baseline Assumptions Draft C, Rev. 1" transmitted 2/13/08.</p>

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
			<p>The “Assumptions Document” shall include and define the baseline estimating assumptions used, including:</p> <ul style="list-style-type: none"> • The BNL overhead rate(s) the project will be charged. • Any extraordinary, dedicated (traditional overhead) services that the project will pay for directly. • Any services and/or projects (indirectly funded or outside of the project scope) that the Laboratory agrees to provide in coordination with the project. • Reference to any Memoranda of Understanding between the project and the appropriate laboratory support organizations detailing these arrangements.” <p>The “Assumptions Document” shall be referenced in or appended to the PMB.</p>			

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CAR 5 Major	<p>Revisions.</p> <p>All.</p> <p>Guideline 31 - Prevent revisions to the program budget except for authorized changes.</p> <p>Guideline 32 - Document changes to the performance measurement baseline.</p> <p>The BSA guidelines concerning change control are contradictory. Also, CFN change control documents do not meet the ANSI standard for both Guidelines 31 and 32</p> <p>There is no consistent EVMS description or complete flow-diagram of the Change Control process. There are multiple documents and practices that make up the Project Control System Description and implementing procedures/guides for a variety of projects managed by BSA (CFN, NSLS-II, and the BGRR). The estimating procedure for the CFN does not reference the Change Control Procedure. The BNL EVMS policies for BSA projects provide conflicting guidance.</p> <p>The BNL Earned Value Management System, Section 5.1.2 Change Documentation page 23 states, "A detailed change log is maintained to record all changes to authorized work and to reconcile original budgets and schedules and all changes for the WBS elements". A contradictory statement can be found in the same document, BNL Earned Value Management System, Section 5.1.5.2 Changes within Control Accounts page 24 states, "changes made within a control account that do not trigger formal change control may still alter the "shape" of the PMB and must be incorporated in the PMB in a timely manner (usually with one month)". [sic] Their statement "do not trigger formal change control" implies that changes can be implemented without formal change</p>	#31, 32	5.1. Add a complete flow diagram of the BNL/BSA baseline change control process to the EVMS Program Description (see PNNL flow diagram as an example).	Murphy	1/31/08 Completed 4/15/08	Developed and added flow diagram of BNL/BSA BCP process to the EVMS Program Description, Section 5.1.1.
			5.2. Review PM-1.9A, "Change Control, Appendix A, Change Control Flow Diagram" for adequacy.	Murphy	1/31/08 Completed 4/15/08	Replaced existing flow diagram with new (see above) in PM-1.9A, "Change Control", Appendix A.
			5.3. Cross-reference PM-1.9, "Change Control", in PM-1.7, "Cost Estimating", Section 3.0, References.	Murphy	1/31/08 Completed 3/21/08	Added cross-reference for PM-1.9, "Change Control", into PM-1.7, "Cost Estimating", Section 3.0.
			5.4. Revise language of EVMS Program Description, Section 5 to address the inconsistent language noted by the review team. Ensure that the EVMS Program Description complies with Guideline 31 (Prevent revisions to the program budget except for authorized changes) and Guideline 32 (Document changes to the performance measurement baseline).	Murphy	1/31/08 Completed 4/11/08	Deleted the word " all " from paragraph 5.1.2 to allow minor re-planning within a work package that does not impact the schedule or budget . Cross-checked change control text in LBNL's and PNNL's EVMS system descriptions. Consistent with BNL's.
			5.5. Ensure that PM-1.9, "Change Control" complies with Guideline 31 (Prevent revisions to the program budget except for authorized changes) and Guideline 32 (Document changes to the performance measurement baseline).	Murphy	1/31/08 Completed 3/21/08	Para. 1.0 of PM-1.9, "Change Control" states "Changes shall be controlled and appropriately authorized to maintain the integrity of the PMB (including project budget)." to comply with Guidelines 31 & 32.
			5.6. NSLS II project will address these findings through using their web-based change control tool . (See CIO 2.) The review team said this tool provided "transparency across the entire change control process with the appropriate checks and balances to ensure compliance with the Revisions criteria of ANSL."	Lavelle	2/28/08 Completed 4/10/08	The NSLS-II change control procedure details the process for reviewing and approving baseline changes. See the NSLS-II change control procedure and copy of the change control log. Also see screen shot of the NSLS-II change control web-based tool (which continues to be under development.)

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
<p>5</p> <p>Cont'd</p>	<p>control. The CFN PEP Section 8 C - Baseline Change Control Process Table 1 page 30 - shows that only change in WBS levels 1, 2, and 3 needs to be documented. This contradicts the direction in the BNL EVMS document, which requires all changes to be recorded.</p> <p>An example of baseline changes that are documented outside of formal change control is described in CFN WBS 1.2.7. Table 1, included in the attachments. The table describes changes made between level 4 WBS control accounts. The changes that are highlighted in yellow are outside of formal change control and not found in the Baseline Change Log. Instead the changes were "documented" in a memo dated June 11, 2007. However, other significant changes in activities, highlighted in blue, were not even identified in the memo. Even though these changes in effect total to no change in cost, they did change the schedule, they still formally indicate activity changes and should be identified in a Baseline Change Log.</p> <p>As evidenced in Monthly CPR reports on the CFN project from June, July, and August, for WBS Element 1.2.7, CFN End Stations at NSLS, a monthly reconciliation of changes to the approved PMB is not conducted. During July a reduction of \$557K of BCWS was removed from the Cumulative total, however the Current month total, nor the VAR, reflected this change. If Management had reviewed the associated Excel Report prepared for the Work Package Manager, the graphic clearly shows the \$557K reduction in the month of July. The data integrity within COBRA (as evidenced by the CPR report), which was stated as the data source (direct feed) for the Excel report is questionable. The portion re-spread into FY 2008, should have resulted in a budget increase due to escalation. The BAC remained the same. The Excel charts for WBS 1.2.7 indicated</p>					

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
<p>5</p> <p>Cont'd</p>	<p>this change but no VAR captured this change.</p> <p>Lastly, BCPs should have adequate documentation either as direct attachments or references to documents in a central project file to clearly provide a reviewer the description, justification, and impact to all baseline components from the change. Nowhere in the documentation were technical aspects addressed.</p> <p>These findings were limited to the CFN, the other projects reviewed did not have activities to determine the compliance of their change control processes: the BGRR has had extremely limited activity in the past 24 months while the NSLS-II is not sufficiently mature. These recommendations should be applied for all future BSA EVMS activities.</p>					

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
	<p align="center"><u>BSA EVM Policies and Procedures</u></p> <p>Paragraph 1.3.8 of the EVM System Program Description provides definitions of Contingency and Management Reserve (as a component of Contingency), and then provides for processes wherein they are controlled within the same account with no differentiation and separate tracking of MR uses (to address DOE accountable issues such as changes in contract scope, major changes in funding profile, etc.)</p> <p>Regarding change control requirements, these are specified in the change control thresholds table of the CFN Project Execution Plan (PEP).</p> <p align="center"><u>Discussion</u></p> <p>A separate accounting (via separate logs) for usages of Contractor MR, and DOE Contingency, is essential for incentive contracts wherein the Contractor fees are dependent on his ability for complete a project for a cost less than or greater than the target cost (i.e., PMB + Contractor MR) and Target Schedule end date. Although one might argue that this differentiation of contingency into an MR and DOE contingency may not be applicable to a site M&O contract, the general intent of the above requirement still applies.</p> <p align="center"><u>Finding</u></p> <p>Several specific findings have been identified with respect to the ANSI/EIA-748 Guidelines associated with Revisions and Maintenance. In general, improvements are required in (a) guiding documentation and procedures, (b) documenting all changes to the PMB through change control and (c) the documentation and storage of this information associated with change control actions. These are documented in more detail in Guideline write-ups for Revisions and in the separate CAR regarding GLs 28-32.</p> <p>To highlight one major area of concern, discussion</p>		<p>6.3. Review and revise EVMS Procedure PM-1.9, “Change Control” to address the same issues as listed above.</p> <ul style="list-style-type: none"> • The procedure should also require more descriptive BCP titles and log entries. <p>6.4. The EM Program (D&D of the BGRR) should review its use of contingency and management reserve to ensure it complies with BSA’s EVMS.</p>	<p>Murphy/ Hill / Cowell</p>	<p>1/31/08 Completed 3/21/08</p> <p>12/31/07 Completed 11/1/07</p>	<p>PM-1.9, “Change Control” revised to address improved logging of BCP’s and separately tracking the use of contingency and MR.</p> <p>The EM program has reviewed its processes and procedures regarding its use of Contingency and Management Reserve. These processes and procedures are in compliance with DOE-EM guidelines for Contingency and Management Reserve use, and with BSA’s EVMS Program Description.</p>

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
	<p>will focus on the change control packages associated with the Conventional Facilities Construction portion of the CFN project. Although the contract with BSA is an M&O Contract (versus a project specific cost and schedule performance incentive fee contract), the approach taken by BSA of commingling MR and DOE contingency does not provide transparency of who is accountable for what changes. In addition, in practice BSA combines multiple change control actions within a single BCP such that, for example, a scope reduction budget (or other budget reduction action) is taken and then added to another area, without making separate adds and subtractions to the commingled contingency account. Further, if these separate adds and subtractions had been made, there are BCPs in the table shown below [see CAR #6] for which it appears that the A/E approval would have been required (but were not required). This practice appears to circumvent the change control table requirement for the appropriate level of approval. (Notes: The CFN PEP notes that cumulative usage of contingency above \$5.0M, or single uses exceeding \$0.5M, requires the Acquisition Executive approval.)</p> <p>[See BCP log reproduced on CAR #6.]</p>					

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CAR 7 Major	<p>For CFN, the variance reports primarily addressed schedule delivery variances. The team did not see descriptions of root causes of variances. In 1.2.1 there was evidence of variances over threshold but no variance report was generated. GL#22 requires comparison of the amount of budget earned (BCWP) with the actual direct costs (ACWP) for the same work. This comparison provides the cost variance.</p> <p>Example: <i>WBS 1.2.1 Nanopatterning</i> - Focused Ion Beam System was delivered on June 29th and installation began on August 15th. Installation of the Molecular Nanoimprinter began on June 4th and should be completed in July. The Plasma reactive Ion Etching System was awarded in June 26th with delivery planned for October. All of the remaining equipment items are out for bids with delivers planned for September and October.</p> <p>For NSLS II there was no variance analysis reporting for the FY07 effort. Some CAMs are receiving EVMS reports for practice, but are not doing variance analysis.</p> <p>For CFN the integrity of the data being used in CFN in some cases is a problem. The earned value techniques (thresholds) used in some instances are inconsistent. In WBS 1.2.5.3 the work package was planned and scheduled one way, progress payments defined another way, earned a third way and the actual booked a fourth way. Even though the budget was defined as a weighted milestone method P was being earned using a combination of % complete and 50/50 EVMS method . P was not found to be stasured using a weighted milestone method as documented. The team found that the schedule and the way P showed this subcontract as 100% complete, but according to</p>	#22, 23, 26, 27	<p>7.1. Perform a review to ensure that NSLS II and EM Program (D&D of the BGRR) Project Execution Plans (PEPs) contain appropriate thresholds for reporting cost and schedule variances.</p> <p>7.2. Review the EVMS Program Description, paragraph 2.3 to determine if requirements for control account managers (CAMs) to: (1) perform root cause analysis on variances, (2) develop and plan corrective actions for variances, (3) perform estimate to complete (ETC) / estimate at completion (EAC) calculations for their monthly reports are adequately stated.</p> <p>7.3. Review the EVMS Procedure PM-1.8, “Monthly Status Reporting” to determine if requirements for control account managers (CAMs) to: (1) perform root cause analysis on variances, (2) develop and plan corrective actions for variances, (3) perform estimate to complete (ETC) / estimate at completion (EAC)</p>	Dierker / Lavelle & Hill / Cowell	11/30/07 Completed 4/10/08	<p>The variance thresholds in the NSLS-II project are documented in the PEP. The thresholds are 10% and \$250K for current period cost/schedule variances at WBS Level 2 and 10% and \$1M for cumulative cost/schedule variances at WBS Level 2. See attached.</p> <p>During discussions with the EVMS review team leader, it was determined that thresholds for reporting cost and schedule variances may be reflected in alter-nate project documentation (other than the PEP). The EM program will reflect reporting thresholds in the next revision of the PCSDD.</p> <p>The EVMS Program Description includes requirements for CAMs to: (1) perform root cause analysis on variances – <u>see Paragraph 2.3.2.</u> (2) develop and plan corrective actions for variances – <u>see Paragraph 2.3.2.</u> (3) perform estimate to complete (ETC) and estimate at completion (EAC) calculations for their monthly reports – <u>see Paragraph 2.3.7.</u></p> <p>Reviewed EVMS Procedure PM-1.8, “Monthly Status Reporting”. Stenghtened / clarified language in paragraphs 4.3, 4.4, and 5.0. See PM-1.8, Rev. 1, dated 4/15/08.</p>
				Murphy	1/31/08 Completed 3/11/08	
				Murphy	1/31/08 Completed 4/11/08	

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
	<p>the CAM the work package effort was not complete, the acceptance of the systems was not finished and the final progress payment plus burden was not paid to the subcontractor. All of these events would lead to an overrun to the BAC, but was not reflected in the data. For CFN and BGRR the team did not see evidence of documented EAC updates other than system calculated. GL#23 requires that variance analysis reports be prepared for significant variances at least monthly, that EVMS thresholds be set for earning value, and that EAC updates occur when necessary.</p> <p>For CFN the team did not see evidence of any corrective action plans or documentation addressing corrective actions based on variance reporting. GL#26 requires that corrective action plans be generated based on the variance reports that exceed prescribed variance thresholds.</p> <p>For CFN the team did not see evidence of documented, grassroots EAC updates other than system calculated. GL#27 requires that revised EAC (Grassroots) be accomplished based on performance to date to accurately reflect a valid project of project costs.</p>		<p>calculations in their monthly reports are adequately stated.</p> <p>7.4. Perform a self-assessment of NSLS II and BGRR monthly reports in Spring 2008 to determine if the above are being done in accordance with the BSA EVMS requirements. (Suggest using project controls staff to cross check the other's project, e.g., Cowell checks NSLS II reports; Lavelle checks BGRR).</p>	<p>Lavelle (BGRR) / Cowell (NSLS)</p>	<p>4/30/08</p>	

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CIO 1	<p>Centralized Project Management</p> <p>There is no centralized Project Management Project Control Office [PMPCO] within BSA. The personnel are assigned on a project specific basis as new projects evolve. This has affected the ability to effectively create and implement a uniform set of management processes and procedures that ensures a fully integrated approach to earned value.</p> <p>The creation of a centralized PMPCO will facilitate the commitment of resources necessary to design, implement, and maintain a fully integrated EVMS within BSA/BNL across all projects.</p>		<p>1.1 Create a central project management / project controls organization (PM/PCO) at BNL to provide a pool of matrixed expertise and resources necessary to design, implement and maintain BNL/BSA's EVMS, other project management processes, and training program in a uniform manner at the Laboratory.</p>	Bebon	<p>N/A Completed 5/20/08</p>	<p>The Project Management / Project Controls Organization has been chartered at BNL. The purpose of this organization is "to standardize EVMS and project management procedures, processes, tools, training and oversight around the Laboratory. This committee will be documented in the SBMS Committee Handbook. (Note: Many committee members were already working on EVMS certification.)</p>
CIO 2	<p>Web-Based Change Control Tool</p> <p>The web based change control tool demonstrated on NSLS II is very impressive. It provided transparency across the entire change control process with the appropriate checks and balances to ensure compliance with the Revisions criteria of ANSI.</p> <p>It is recommended that BSA consider using this tool as 'the' change control tool of their EVM system. Having a standard EVM tool set provides consistency across projects at the lab, reduces the need and expense of 'growing' an EVM system project by project and reinforces the discipline.</p>		<p>2.1. The PM/PCO shall evaluate the NSLS II change control tool in order to make it available and standard for large projects at the Laboratory.</p> <p>2.2. The PM/PCO should also determine whether other software tools (Primavera P5, Cobra, etc.) should be standardized and perhaps licensed by the Laboratory.</p> <p>2.3. Software training should be included in the training program.</p>	PM/PCO		

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CIO 3	<p><u>Develop Oversight/Surveillance Processes</u></p> <p>There were observations made during the review that would have been mitigated if a formal oversight and/or surveillance process was in place:</p> <p style="padding-left: 40px;">Data anomalies in Jun/Jul CFN CPR. No explanation was provided for a variance that tripped the threshold. Internal re-planning of current BCWS with no BCP. Movement of direct labor activities into G&A via BCP.</p> <p>The current practice on CFN does not require a BCP to be processed for internal changes to the baseline. A change to current BCWS was made which caused a \$500K variance. This tripped the threshold yet no VAR was provided. The following month this variance disappeared, there was no current BCWS and again no variance explanation.</p> <p>A BCP was processed that moved direct labor budget from on WBS to another to cover a cost growth. The direct effort associated with this budget was now to be charged to overhead.</p> <p>The above has been documented in CAR#4, 5, 6, 7.</p> <p>A formal oversight, scrutiny, analysis process should be developed (on CPRs and BCPs as in this example) with the focus on data integrity and monitoring practices to ensure consistent application of internal policies and procedures compliant with ANSI-748.</p>		<p>3.1. Preferably working with the proposed PM/PCO, develop an oversight / surveillance / self assessment program to review implementation of BNL/BSA's EVMS program, and implementation of project management-related DOE orders among the projects over \$20 million TEC.</p>	PM/PCO		

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
<p>CIO 4</p>	<p>Develop Training Program</p> <p>There are no procedural requirements regarding required EVMS training and Control Account Manager (CAM) training and qualification.</p> <p>In addition to the limited basic EVM training provided to the CAMs, it would be beneficial for BSA to develop an EVMS training program structured around the nuances inherent in the processes of the system. This would include unique project management aspects of the system, forms that have been or are being designed for implementation, and process-oriented interfaces with other internal systems that support project management.</p> <p>The training program should be conducted on a rotating schedule and/or be modified to reflect the documentation updates.</p>		<p>4.1. Preferably working with the proposed PM/PC organization, develop job training assessments for the following roles:</p> <ul style="list-style-type: none"> • Project Manager • Control Account Manager • Work Package Manager • Project Controls Specialist <p>Training should build on Project Management and EVMS courses that have already been offered, and previous attendees should be credited with training already received. Perhaps a seminar series or some other form of skill building / refresher training can be developed.</p> <p>Training courses should be reviewed to insure they address / help correct the deficiencies noted in the EVMS certification review:</p> <ol style="list-style-type: none"> a. correct development of a WBS Dictionary b. proper application of approved EV techniques and consideration of the EV method in the contract or purchase order terms c. use of escalation in cost estimating and implementing baseline changes (BCPs) d. account principles regarding proper use of direct project funds and indirect funds e. proper documentation of baseline changes f. tracking of contingency and management reserve use in the change control logs g. 7. reporting, “living with” and managing cost and schedule variances 	<p>PM/PCO</p>		

Control Number	Corrective Action Request / Continuous Improvement Opportunity	Guide. Ref.	Planned Corrective Actions	Assigned	Due Date	Corrective Action Status
CIO 5	<p>Incorporate the baselines for BGRR and NSLS II into the EVM system starting in October 2007.</p> <p>Although CD-2 has not been approved, these baselines have a scheduled start date of October 1, 2007. Conducting EVM practices against this proposed baseline will allow for easier implementation once the CD-2 is obtained and will demonstrate the EVM techniques can be properly employed against these revised/new baselines.</p>		<p>5.1. Establish monthly earned value reporting against baseline in accordance with BSA / BNL EVMS as soon as possible.</p> <ul style="list-style-type: none"> • BGRR is already preparing monthly reports. • NSLS-II will begin reporting with 12/07 monthly status in 1/08. 	Lavelle / Cowell	N/A Completed 2/28/08	<p>BGRR monthly reporting is “status quo”. The monthly reporting for NSLS-II began with January status. February, March and April Cost Performance Reports are attached and a link can be provided for the Integrated Project Database where all projects are posted and available to the Project team.</p>
CIO 6	<p>Modify Standard BCP Log to Include Origination Date</p> <p>Place a box for origination date on the BCP log to better access the timeliness of BCP actions.</p>		<p>6.1. Review the EVMS Procedure PM-1.9, “Change Control” to ensure procedure and attachments includes origination date and actual sample log from a current BNL project.</p> <p>6.2. Revise, if necessary, BCP logs for NSLS II and BGRR to include BCP origination date.</p>	Murphy Lavelle / Cowell	N/A Completed 5/21/08	<p>EVMS Procedure PM-1.9, “Change Control” includes origination date. A sample log is included in CA 5.6 (but has not yet been incorporated in PM-1.9).</p> <p>BCP logs for NSLS II and BGRR to include BCP origination date.</p>