



Department of Energy
Office of Science
Washington, DC 20585

JAN 27 2017

Dr. Chi-Chang Kao
Director
SLAC National Accelerator Facility
2575 Sand Hill Road
Menlo Park, California 94025

Dear Dr. Kao:

It is a pleasure to inform you that Stanford University (SU) at the Department of Energy (DOE) SLAC National Accelerator Laboratory (SLAC) has successfully completed the DOE Earned Value Management System (EVMS) Acceptance Review process. As a result of the independent surveillance review conducted and the corrective actions taken by SU SLAC, it has been determined that the EVMS continues to meet the requirements of the Electrical Industries Alliance (EIA)-748.

To verify EVMS compliance, an independent surveillance/EVMS acceptance review was conducted at SLAC on September 7-9, 2016, to determine if the SU SLAC EVMS met the EIA requirements.

During the review, the surveillance committee identified four Corrective Action Requests (CARs) and nine Continuous Improvement Opportunities (CIO / CIO*), including:

Corrective Action Requests – Non-compliance of the ANSI Standard or the System Description. Requires a corrective action.

- CAR-01 Implement WBS Dictionary modifications resulting from Baseline Change Requests in a timely manner (LSSTCam—Repeat of CAR-01 at February 2016 surveillance review)
- CAR-02 Address incorrect, high float values due to missing logic and status techniques (LCLS-II)
- CAR-03 Define current period variance thresholds (LCLS-II) and perform current period variance analysis (LSSTCam)
- CAR-04 Improve variance analysis reporting quality (LSSTCam, LCLS-II)

Continuous Improvement Opportunities – A violation corrected during the review, is non-systematic, or found to be significant. Requires a corrective action.*

- CIO-01* Clarify wording in system description regarding the “reporting period plus two periods” requirement and expectations (LSSTCam, LCLS-II)
- CIO-02* Improve supporting documentation for percent-complete earned value techniques



Continuous Improvement Opportunities – Enhancements, observations or other suggested improvements. No corrective action required.

- CIO-01 Revise documentation to clarify use of Management Reserve
- CIO-02 Improve variance analysis report quality
- CIO-03 Clarify requirement for updating Work Authorization Documents (LSSTCam, LCLS-II)
- CIO-04 Follow documented Estimate at Complete process (LCLS-II), enhance Control Account Manager (CAM) training (LCLS-II), CAM communication (LCLS-II), and reporting (LSSTCam, LCLS-II)
- CIO-05 Estimate-at-Complete CAM training, communication, and documentation is needed
- CIO-06 Improve supporting documentation for percent-complete earned value techniques
- CIO-07 As a best practice, provide justification/reasons for lags and constraints within the schedule (LCLS-II)

SU SLAC provided a Corrective Action Plan dated December 2016 to address the CAR and CIOs/CIO*s. The actions proposed and undertaken by SU SLAC in the Corrective Action Plan are acceptable.

OPA urges you to continue to maintain the high level of compliance that your staff demonstrated to the EVMS surveillance committee during the on-site review and CAR resolution process to ensure continuing EIA compliance and valid EVMS certification.

Sincerely,



Stephen W. Meador
Director
Office of Project Assessment

cc:

S. Binkley, SC-2
J. McBrearty, SC-4
H. Kung, SC-22
J. Murphy, SC-22
P. Kraushaar, SC-22
J. Siegrist, SC-25
M. Procaro, SC-25
H. Marsiske, SC-25
K. Fisher, SC-28
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H. Lee, SSO
H. Joma, SSO

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
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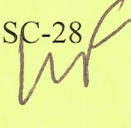

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 SC-28	 SC-28
KFisher 1/26/17	S Meador 1/27/17

CR	Description	Support/Action	Status	Outlook
CR#1 (1/20/12)	<p>Separation of the necessary information regarding the control system, including the necessary information, into separate documents.</p> <p>LSCM and PMS System Description was not updated in a timely manner to reflect changes and improvements to the LSCM and PMS System Description. Any documentation (SAC, Decision, etc.) is to be updated by the date of the following reporting period. Additionally, the SAC and PMS System Description states that "Some additions will be added following confirmation that all project (SAC) documents capture the additional inputs." As a result, the LSCM project is in violation of both the SAC Change Control Procedures and the PMS System Description.</p> <p>Approved access changes, such as LSCM and PMS System Description updates, were not updated in the PMS System Description. The PMS System Description and signature approval of data show that the updates were made in August, which is three reporting periods after the updates. Instructions stated in the SAC Change Control Procedures. Additionally, LSCM and PMS System Description (July reporting period) mentions that an update to the PMS System Description is required as a result of the change. As of the September review, this update had not been made and is already three reporting periods late.</p>	<p>Projects should update necessary documentation following each SAC or a timely manner before the date of the following reporting period so as to be in compliance with both the SAC, PMS System Description and Change Control Procedures.</p>	<p>LSCM has not updated the PMS System Description with each reporting period for approval.</p>	<p>Close</p>
CR#2 (1/20)	<p>Address incorrect high-risk risks due to misinterpretation of status between Parties to LSCM.</p> <p>As noted in CR#10 in the previous CRIS review in February 2012, multiple instances of the four categories of progress activities are listed in the risk register below. A lack of discussion about the high risk status of the in-progress activities and the status continues that activities. The situation was a result of the confusion of the priority of the in-progress activities, and considering the numerous number of activities with less than 10 days of float, it is expected the CAIs and project will clearly understand what current activities are the most critical. Furthermore, when the CAIs were asked about the float values, all confirmed they were incorrect, and even in some cases noted that the critical activities were not correct. When asked about how they used the schedule to help prioritize their current work, not one CAI turned to the schedule and/or identified current low float activities shown in the schedule. There is a concern the CAIs do not clearly see the number and criticality of their in-progress activities.</p>	<p>Conduct a more extensive technique of updating the schedule that will illustrate current float values on current activities. The audit will include looking for missing logic like to-start-of-previous-start or finish and missing logic during the schedule calculations.</p>	<p>The Project Controls Manager will work with the LSCM and LSCM PACS teams to assess and recommend a solution to the issue.</p>	<p>Open</p>
CR#3 (1/20)	<p>Define current period variance thresholds (LCS) and perform current period variance analysis (LCS).</p> <p>LCS#1: According to the SAC PMS System Description, "The project director/lead project director/project manager will establish thresholds to report to project teams. These thresholds are identified in the PMP. The LSCM Project Control will define these variance thresholds in the project's PMP. As a result, they are not in compliance with the System Description." LCS#2: The defined variance thresholds in the CS Cost Performance Index (CPI) and Schedule Performance Index (SPI) reporting is not quantified, which makes it hard to perform variance analysis. There is no guidance established for what a unacceptable margin value criteria defined for variance analysis will not produce uniform reporting expectations based on the interpretation of the end user performing the analysis. LCS#3: SAC PMS System Description, in Section 3.1.1 Variance Thresholds, states that "variance analysis is conducted on a current and/or cumulative CPI (CPI) is tracked." It also states that these thresholds are defined in the PMP. LSCM's variance analysis thresholds are defined in the LSCM Project Control Plan and not in the PMP. Also, current period variance analysis thresholds were not defined. When LSCM PACS and CAIs in the HARMER were reviewed, it was found that current period variance analysis was not performed.</p>	<p>LSCM PACS should ensure that variance threshold definitions are captured within the PMP as stated in the PMS System Description. The thresholds should be clear and quantifiable to minimize any reporting confusion. If supplemental documentation is required information, the PMP should reference the documents to remain in compliance.</p> <p>LSCM should ensure that defined variance analysis thresholds are used in the PMP to be consistent with the SAC PMS System Description. If SAC continues to require current period variance analysis, the LSCM project should update their variance analysis thresholds to define current period thresholds. If they choose to remove the current period variance analysis requirement, the SAC PMS System Description should be updated to reflect this change. Also, the project should need to ensure that the PMPs are updated to remove the current period variance analysis thresholds and any supporting language.</p>	<p>LCS#1 has updated their PMP to include only cumulative variance thresholds.</p> <p>LSCM will update their PMP to include only cumulative variance thresholds by January 2012.</p>	<p>Open</p>
CR#4 (1/20/12)	<p>Verify variance analysis reporting quality (LCS) and (LCS).</p> <p>This form was COC'd at the original reporting. According to the Laboratory's PMS System Description, variance analysis provides the means for the control account manager to derive and communicate cost, schedule, and SAC divergence from the performance measurement baseline. Post-cost analysis is performed at the minimum at the control account level. The LSCM Project has not been fully executing variance analysis as described in the SAC PMS System Description. As a result, they are not in compliance. The LSCM project performance variance analysis on a monthly basis. The project uses a form that misses the varied value metrics for current schedule and current performance. CAIs are required to review that performance and draw conclusions based on the data. Upon review of their variance analysis documentation, the review team found that CAIs had not been accurately describing what happened, why it happened, and what steps are required, if necessary, to get back on track. When we spoke with the CAIs, it was clear that they were unable and able to articulate causes and take, but their information was not reflected on their form. There were also instances where an obvious correction action should have been reflected on the form and included in the corrective action log. A CAI did not believe the corrective action needed to be stated if the issue was resolved prior to the development of management reports. A reviewer noted that the nature of the reality of it is not explicitly stated on the form does the log. Lastly, the fact score on the form needs to be increased to ensure the full narrative is visible for usability.</p>	<p>SAC needs to perform project control team involved in the completion of the documentation being used for reporting. SAC should also identify critical parts of contracts to ensure the monthly reporting and provide that information that project is in compliance with the Laboratory's PMS System Description. Based on the quality of future reports, SAC should routinely assess if additional training requirements are needed above the annual CAPS training requirement to ensure and maintain compliance behavior.</p>	<p>LCS#1 (LSCM Project Control) will ensure COC'd if in compliance with the reporting quality. The SAC Project Controls Manager will review and ensure VAWs.</p> <p>LCS#1 will also be reviewing the HARMER for variance reporting.</p>	<p>Open</p>
CR#5 (1/20/12)	<p>Verify variance analysis reporting quality (reporting period for 1/20/12) (LCS) and (LCS).</p>			