

United States Government  
Department of Energy

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# memorandum

DATE: March 7, 2008

REPLY TO

ATTN OF: SC-22

SUBJECT: DOE REVIEW OF THE LINAC COHERENT LIGHT SOURCE (LCLS) PROJECT

TO: Daniel R. Lehman, Director, Office of Project Assessment, SC-28

This memorandum slightly modifies the review dates of the previous charge memorandum dated February 25, 2008. I request that you organize and lead an Office of Science (SC) status review of the Linac Coherent Light Source (LCLS) project at the Stanford Linear Accelerator Center (SLAC) during May 13-15, 2008. The purpose of this review is to evaluate progress in all aspects of the project: technical, conventional facilities, cost, schedule, management, and environment, safety and health (ES&H).

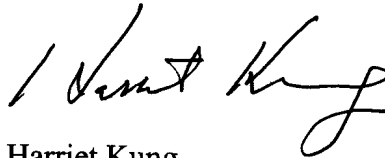
During the past several months, the project has undergone several reviews and has an approved performance baseline change. The FY 2007 continuing resolution (CR) had many impacts to the projects resulting in a performance baseline deviation (both in cost and schedule). The Office of Engineering and Construction Management (OECM) conducted an External Independent Review (EIR) of the project which concluded successfully. A Performance Baseline Change was approved on January 24, 2008. A Baseline Change Request (BCR) was approved on February 7, 2008. The FY 2008 continuing resolution (CR) had limited impact to the project cost and schedule. The project has continued with civil construction activities and technical hardware procurement and installation. The project was 71% percent complete as of the end of December 2007 against the original baseline. This is the first SC Status review of the project under the revised baseline.

In carrying out its charge, the Committee should respond to the following questions:

1. Are the project's cost, schedule, and technical baselines consistent with the FY 2009 LCLS Construction Project Data Sheet? Is there adequate contingency (cost and schedule) to address the risks inherent in the remaining work and is contingency being properly managed? Is the contingency supported by and consistent with an appropriate project-wide risk analysis? Is the information in the DOE Project Assessment Reporting System consistent with physical progress?
2. Are the construction field activities progressing in a manner consistent with the predicted costs and schedule? Has the renovation of laboratories and office space (Buildings 28 and 750) been integrated into the appropriate project planning and execution documents?
3. Are the designs, procurement and commissioning plans of the technical systems sufficiently mature to support the project schedule? Will preparations for LCLS experiments, (i.e. first delivery of x-rays to the Near Experiment Hall) provide a smooth hand-off and transition to LCLS operations? Are preliminary plans adequate for determining operational readiness?

4. Are preparations for initiation of the LCLS experimental science program progressing appropriately? Assess the effectiveness of LCLS progress and plans for activities such as user outreach and communications, proposal solicitation and review process, policy for access to the facility, goals for commissioning instruments, and plans to support the experiments during facility operations.
5. Are ES&H aspects being properly addressed given the project's current stage of development?
6. Is the project being managed (e.g., properly organized, adequately staffed) as needed to continue with construction and technical equipment installation and commissioning? Is there an adequate interface activity between LCLS and the LCLS Ultrafast Science Instruments (LUSI) project? Is there adequate support from SLAC in all necessary areas (e.g., contracts, procurement, human resources)? Has the project responded appropriately to recommendations from prior DOE reviews?

Thomas Brown, the LCLS Program Manager, will serve as the Basic Energy Sciences point of contact for this review. I would appreciate receiving your committee's report within 60 days of the review's conclusion.



Harriet Kung  
Associate Director, (Acting)  
for the Office of Basic Energy Sciences

cc:

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